Local and Urban Governance

Abraham R. Matamanda
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Verna Nel *Editors*

Secondary Cities and Local Governance in Southern Africa

Springer

Local and Urban Governance

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James Chakwizira is an experienced and trained spatial and transportation specialist. He studied at the Universities of Zimbabwe (UZ) (Bachelor and Masters in Rural and Urban Planning) and University of Venda, Thohoyandou (PhD in Urban and Regional Planning specializing in transportation and infrastructure planning). He is a professor in the Department of Urban and Regional Planning, Faculty of Science, Engineering and Agriculture, University of Venda, South Africa, and also an extraordinary professor, Unit for Environmental Sciences and Management, North-West University, South Africa. He has consulted on national and regional projects/programmes in Africa, Asia and Europe. He has published, taught at universities in Southern Africa, practiced in both the public and private sector leading multidisciplinary teams and units concentrating on local, regional and national (rural and urban) transportation, local, regional and national spatial planning and development, urban designing of precincts, neighbourhoods and spatial development frameworks, sustainable regional economic development, climate change and adaptation, urban design, smart cities, regional integration, appropriate technology, poverty reduction, post-mining landscapes, wealth creation and sustainable human settlements.

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Verna Nel qualified as a town and regional planner at Wits University and obtained her MSc and PhD through UNISA. After three decades of working primarily in municipalities, she moved to the Urban and Regional Planning Department of the University of the Free State. She has diverse research interests that include spatial and urban resilience, local economic development and spatial governance. She has presented her work at international conferences and has published her research in leading journals and books.

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Chapter 1
Introduction

Abraham R. Matamanda, Verna Nel, James Chakwizira, and Kudzai Chatiza

Abstract This chapter introduces the book. The focus is on providing a nuanced understanding of secondary cities and their role in urban development and urban agenda. It is pointed out that secondary cities are contested, starting with the ambiguities in defining what they are and their place within the urban hierarchies in different countries. These categorisation and conception are especially important as they form the bedrock upon which government policies are formulated and implemented regarding the governance and management of the secondary cities. We thus examine the meanings of secondary cities by identifying the typologies of these secondary cities in a southern African context. Secondary cities are inherently complex and have comparative advantages that may spur sustained urbanisation. Hence, we explore these opportunities and most importantly situate the exploration within the bounds of local governance and question why governments continue to marginalise these secondary cities when they have so much potential of alleviating urban challenges. The chapter proceeds to present the aim and objectives of the book and lastly outlines the scope of the book.

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1.1 Trends in Urbanisation Systems in Southern Africa

African cities are urbanising rapidly. Many studies have documented the urban dynamics in southern African cities. Most of the studies undertaken focus on the larger metros such as Johannesburg and Cape Town in South Africa (Abrahams and Everatt 2019; Scheba et al. 2021), Harare in Zimbabwe (Muchadenyika et al. 2019), Lusaka in Zambia (Umar et al. 2023) and Francistown and Gaborone in Botswana (Samuel et al. 2022). This focus has often resulted from the capitalist urbanisation that has resulted in the attention and focus among policymakers and planners on these large metros while seemingly casting a blind eye to the smaller cities. Yet, there is growing evidence that most urbanisation in sub-Saharan Africa, including southern Africa, will occur in secondary cities (Githira et al. 2020). According to Zimmer et al. (2020), the total urban population in southern Africa increased from 22.8 million to 67.3 million people between 1975 and 2015. Their study confirmed that secondary cities accounted for nearly 50% of this growth. Currently, southern Africa accommodates 70% of the urban population in sub-Saharan Africa (SSA). By 2016, 15% of the South African population resided in secondary cities showing a large share of the urban population in these second-tier cities (Marais et al. 2016). Likewise, there is increased urbanisation of secondary cities in Zimbabwe as evident from the slowed or stagnated urbanisation in the larger cities such as Harare, Bulawayo and Gweru (Infrastructure and Cities for Economic Development 2017; Mbiba 2017; Moyo 2020). This confirms studies by Potts (2009, p. 254; 2010, 2012, p. 14) that show the misconstruction of the 'rapid urbanisation' narrative for Africa where the primate cities are assumed to be urbanising more.

Despite the growing evidence that secondary cities are urbanising more rapidly than primary cities in most parts of southern Africa, many urban development and governance interventions prioritise the primary cities (Githira et al. 2020). This prioritisation of primary cities has resulted in polarising effects, with growing physical and socio-economic development gaps between primary and secondary towns, creating socio-spatial inequalities and multiple deprivations, including water and sanitation services. These inequalities and gaps are largely attributed to limited economic investment in the secondary cities. Much of the investment is directed towards the large metropolitan areas often envisaged to become 'world-class' cities. The same applies to disaster interventions that remain concentrated in capital cities (Samuel et al. 2022). In this regard, climatic risks are also exacerbated in these fragile secondary cities due to rapid urbanisation, exposing the poor to multiple stressors (Kagaya et al. 2021). It thus becomes critical to analyse how climate change adaptation strategies are integrated into these secondary cities' governance and management policies.

Over time, the focus on the primary cities has created weak governance systems in the secondary cities as power and authority remain centralised (McGregor and Chatiza 2020; Githira et al. 2020). Such state-led type of top-down governance has tremendous implications for the development trajectories of secondary cities as resource allocation may be unfairly divided between the centre and the periphery, marginalising the latter, while the development needs of these cities remain overlooked (Smith 2019; Alves 2021). With the centralisation of power, authority and decision-making, it becomes critical to note that even budgetary issues tend to be centralised together with oversight of local resources and services that in most instances stifle sustained urban development in the secondary cities. Most importantly, there are instances where some regions are prioritised over others, and this has negatively affected service delivery in such secondary cities (Nugraha et al. 2023). Evident is in Zimbabwe's Matabeleland regions that have been marginalised by the government (Matamanda et al. 2021).

1.2 Conceptualising and Categorising Secondary Cities

Secondary cities are broadly defined and their characterisation differs across countries and regions. Definitions generally focus on the urban areas' demographic characteristics, size, economic base, function and administrative hierarchy. In their definition, the UN-Habitat (1991) highlighted that a secondary city is one whose population ranged between 100,000 and 500,000 people. However, Roberts (2019) suggests that a secondary city must accommodate approximately an equivalent of 10–50% of the country's largest population, or between 100, 000 and 1.5 million people. Scholars such as Brand et al. (2021) have used the national urban hierarchy system to define secondary cities. In this regard, secondary cities are those cities that fall under the primary or primate cities. Examples include Chinhoyi in Zimbabwe, Kitwe in Zambia and Sasolburg in South Africa. Thus, secondary cities emerge as development growth poles that cater to areas' commercial and administrative functions with extractive industries like agriculture, mining and fishing (Hoffman 2015).

Overall, there are three broad spatial categories proffered by Roberts (2014) that help understand the spatial dimension of secondary cities. First, secondary cities are sub-national cities comprising centres of local government, industry, agriculture, tourism and mining. In such an instance, cities such as Zvishavane and Shurugwi in Zimbabwe apply as they ae mining cities, while Witbank, in South Africa, is also another example of an industrial city. Second, secondary cities are characterised as city clusters synonymous with expanded, satellite and new town cities surrounding large metropolitan city-regions. Examples in this regard include Norton in Zimbabwe and Midrand and Centurion in Gauteng, South Africa. Third, secondary cities include economic trade corridors representing urban growth centres planned or developing along major transport corridors.

1.3 Argument and Rationale for Local Governance and Secondary Cities' Nexus

We make four arguments in this book based on secondary cities in southern Africa. First, we argue that secondary cities have been neglected in the urban narrative for southern Africa, as evident from research and policy that focuses on larger cities and metropolitan regions. In this vein, little is known about these secondary cities' development trajectories and how they can contribute to sustained socio-economic development and the national urban agenda. Yet, secondary cities are complex and have a variety of economic bases, including administrative, regional services, mining, farming, tourism and tertiary institutions (Roberts 2019). However, it is still not understood how these cities may become part of the broader national urban agenda by establishing sustainable links between the hinterland and the centre and the most suitable models for governing these cities.

Second, we recognise the seeming neglect of secondary cities in urban agenda and urban development due to the prioritisation of the major metropolitan regions. This is evident from the work of Nugraha et al. (2023) who have posited that these neglected cities are also 'overlooked cities' hence the need to reconsider urban research and practice. This eventually perpetuates spatial injustice where the secondary cities lag in development. The major question we ask here is how the governance of the secondary cities impacts the spatial justice discourses and the liveability of the cities.

Third, we postulate that there are economic bases inherent in secondary cities that have remained largely untapped or ignored for long. The significance of these secondary cities has long been identified by Kamete (1998), who highlighted the interactions between Banket, a small town, and the surrounding commercial farming areas. Kamete (1998) concluded that the role of small towns and their interactions with the hinterland remain ignored or taken for granted in research and policy. Rondinelli (1983, 42) argued that secondary cities have the ability 'to stimulate the economies of surrounding rural areas, […] slow migration to the largest urban areas, and […] spread the benefits of economic growth to lagging and depressed regions'.

Lastly, a capital city or world city focus has pulled urban development policy and practice into the global arena, ignoring the local peculiarities. Studies of secondary cities also showed that many have narrow economic bases and are thus vulnerable to changes (due to globalisation) (Marais and Nel 2019). Consequently, we argue that there has been limited investment in the secondary cities which stifles socio-economic development in such cities while also jeopardising property taxes as the investments made are low quality. Moreover, good secondary city governance practices do not adequately inform national and local governance and urbanisation management. Thus, we seek to identify the potential of southern African secondary cities in stimulating such growth while also evaluating the constraints to realising such capabilities. Considering the complexity and diversity of secondary cities, the selected secondary cities will be categorised into different clusters related to their geospatial characteristics.

Against this background, we situate this body of work in the narratives on local governance in secondary cities. We seek to delve into the seemingly less researched area from a southern African perspective. The increasing attention on the large cities and metropolitan areas (metros) suggests the neglect and deprivation of secondary cities in southern Africa. Other than South Africa, where human geographers and urban planners have researched secondary cities (Marais et al. 2016, 2021; Marais and Cloete 2017; Marais and Nel 2019; Ranchod 2020), few similar studies have been undertaken in other southern African countries.

Many of the existing studies on secondary cities in the region have focused more on regional economic development and the contribution of these cities in supporting local economies (Kessides 2006). Other studies on secondary cities focused on country-specific issues, while some considered the socio-economic development issues (UN-Habitat 2014; UN-Habitat and IHS-Erasmus University Rotterdam 2018). A regional study that focuses on local governance subjects in secondary cities has been missing from this literature, considering their increasing role in urban growth and development. Therefore, we seek to address this gap by adding a different perspective that examines specific substantive topics inherent in the local governance of these secondary cities.

Based on the foregoing discussion, the broader objectives of the book are to characterise the urbanisation process unfolding in the secondary cities; investigate the local governance strategies and policies guiding the urbanisation process in the secondary cities; explore the nexus of local governance and secondary cities' selected substantive matters that include climate change, land markets, spatial justice and the right to the city; analyse the opportunities and challenges facing secondary cities through the lenses of socio-spatial, economic and political dimensions; and examine the policy implications for enhancing the sustained growth and development of secondary cities to create safe, sustainable, resilient and inclusive urban spaces.

Specifically, the book contributes to understanding urban spaces in southern Africa. This contribution is critical considering the shift from metropolitan cities and primate cities that are largely dominant in urban studies among many scholars with little understanding of the dynamic issues in these cities. Therefore, this book contributes to this growing literature on secondary cities. Moreover, the book contributes to the theoretical work on urban governance by adopting a multidisciplinary perspective that considers different issues in cities, including perspectives on spatial justice, political economy of development and governance of the secondary cities and right to the city.

1.4 Structure of the Book

In trying to gain insights into the governance issues in secondary cities, we have compiled the book based on the following five thematic issues:

1. *Urban governance and urbanisation*.
2. *Land governance in secondary cities*.
3. *Governance for climate change disasters.*
4. *Urban service delivery and governance.*
5. *Planning, urban management and policy.*

Part I focuses on *urban governance and urbanisation* and consists of three chapters. First, Chap. 2 by Tazviona Gambe explores the different strategies that can be employed to improve urban governance in Chitungwiza, Zimbabwe, in the face of rapid urbanisation. Employing both primary and secondary data sources, the chapter analyses the land delivery system in Chitungwiza in the face of increasing urbanisation and political interference in urban governance. The chapter found that an informal land delivery system in Chitungwiza led to illegal developments, some located in sensitive areas such as wetlands and within the flood plains of the city's water courses. Therefore, the study recommends policy interventions to eliminate informal/corrupt land governance practices in Chitungwiza.

Second, Chap. 3 by James Chakwizira uses the case study of Nelspruit in South Africa to analyse the urbanisation trajectory in the city and urban governance dynamics. In the chapter, James argues that with rapid urbanisation and the implementation of post-1994 apartheid reversal policies, the challenge of managing expanding peri-urban settlements is emerging. The chapter notes the existing segregated form of the city inherited from the Apartheid government. It continues to impact the sustained growth and development of the city in the face of rapid urbanisation. Making use of a transit-orientated development theory and approach, Nelspruit's urban development opportunities are highlighted while constraints are discussed. The chapter concludes that Nelspruit's development model can better integrate land use and transport corridor dividends for enhanced growth of its core and immediate environments.

Third, in Chap. 4 Lochner Marais and Verna Nel apply the concepts from evolutionary governance theory to discuss six main governance challenges in South Africa's secondary cities. They conclude that path dependencies, goal dependencies and interdependencies, compounded by a planning system that emphasises plan making rather than implementation, hamper governance in these cities.

Part II of the book comprises two chapters focusing on *land governance in secondary cities*. Chapter 5 by Johannes Bhanye, Vupenyu Dzingirai and Maléne Campbell examines the transactional and supplementary strategies adopted by migrants on the margins to access much-coveted land in Norton, a secondary city in Zimbabwe. The chapter revealed that left alone, marginalised migrants in secondary cities resort to transactions in the form of inheritance, purchase and rentals based on fictive kin. They also affiliate with modern political patrons, traditional leaders and investors in accessing land. In other instances, migrants turn to supplementary strategies such as using occult, witchcraft and land seizures to secure land. However, supplementary strategies are measures of last resort. The chapter concludes that informal settlements in secondary cities emerge as 'hyperactive' spaces with novel forms of authority that regulate access and security over resources for urban settlement and production.

Chapter 6 by Charles Chavunduka and Tsungirayi Tsikira examines various opaque and corrupt practices in public land management that privilege favoured entities. The chapter applies a multi-case study design and examines the public land management system in selected secondary cities in Zimbabwe. Based on content and thematic analysis, the chapter draws the main conclusions and policy advice on the goal-directed management and control of public land in secondary cities. It demonstrates how influential people have been using power structures to make money from public land management.

Part III focuses on *climate change governance in secondary cities* and includes two chapters. First, in Chap. 7 Kudzai Chatiza and Tariro Nyevera explore how war and climate change have stunted economic growth and development along the Beira Corridor, in Mozambique. The chapter explores the extent to which national and regional urban policies are connected. It draws on a review of relevant academic and policy literature at the Mozambican and SADC levels to illuminate strategic responses that may or may not elevate the national and regional importance of the city connecting its planning to other secondary cities in SADC and attracting regional attention to investment along the corridors connecting them and within the individual cities. In doing so, lessons are drawn for Mozambican and SADC urban development policy regarding secondary cities and regional infrastructural investment in general.

Second, Chap. 8 by Abraham Matamanda, Nelson Chanza, Edwin Nyamugadza and Queen Chinozvina focuses on the land use planning strategies for climate change adaptation in secondary cities. Chinhoyi in Zimbabwe is used as a case study, and it is revealed in the chapter that land use planning in Chinhoyi is yet to integrate climate change adaptation, as is evident from the sprawling of the town. The land use planning process fails to acknowledge the realities of climate change, as is evident from the lack of institutionalisation of climate issues at the local level. The authors conclude that the disconnect between land use planning and climate change adaptation largely emanates from lack of skills, technology, funds and personnel in the limited understanding of climate change.

Part IV is premised on the theme *Urban service delivery and governance*. There are two chapters in this part. First, Chap. 9 by Tazviona Gambe and Thomas Karakadzai uses a qualitative methodology to explore the different strategies for improving the water supply and sanitation management system in Masvingo City in Zimbabwe. Data were collected from water and sanitation experts directly and indirectly involved in water and sanitation issues at city and district levels. The chapter found that the management of water supply and sanitation in Masvingo City is increasingly threatened by institutional weaknesses, unfavourable water governance structures and financial instability. Tazviona and Thomas propose several strategies that can improve water supply and sanitation management: the amalgamation of rural and urban water supply and sanitation governance structures; promoting inclusivity, concerted efforts and shared responsibility among water and sanitation stakeholders; and promoting 'resident patriotism' as a way of improving the city's revenue base.

In Chap. 10, Hussein Mugumbate, Wesley Selemani and Abraham Matamanda examine how urban governance in secondary cities relates to food systems. Using Chitungwiza, Zimbabwe, as a case study, they analyse how urban governance in this secondary city impacts food systems. This chapter is especially important considering how residential development in Chitungwiza has been encroaching into the communal lands on the city's periphery where subsistence farming and horticultural activities have been prevalent in areas such as Seke. The chapter found a misconnection between urban governance and food systems. This is evident from lack of integration of fresh food and vegetables markets into the urban form and lack of recognition of the city's food value chain, which compromises citizens' access to adequate food.

The last part in the book titled *Planning, Urban Management and Policy* consists of five chapters. Chapter 11 authored by Charles Chavunduka, Edith Risinamhodzi and Jacob Nyamuda traces the changing centre-local relations to establish the scope for future development funding in secondary cities. The research design adopted a comparative approach to urban finance in Zimbabwe and South Africa. Data collection was based on a literature review and key informant interviews. The results show that both countries have been centralising revenue collection and reducing the scope for local finance. The chapter concludes that in the future, secondary cities will need to look for alternative sources of revenue, including land value capture and public-private partnerships or concessions.

Chapter 12 written by Verna Nel, Mareli Hugo, Abraham R Matamanda and Mark Oranje applies the case of Sasolburg which they term one of South Africa's 'new towns'. In the chapter Verna and her colleagues trace the development of Sasolburg from its inception to its current situation within the Metsimaholo Municipality and its continuing dependence on the petrochemical industry. They interrogate the development and governance challenges in Sasolburg and propose strategies and approaches that can be employed to spur sustained local governance in Sasolburg.

In Chap. 13 Martin Magidi explores how a collapsed manufacturing industry and economy have compromised local government functions in Norton, a secondary city in Zimbabwe. Martin documents how the town is in a financial crisis due to revenue challenges which, in turn, led to the deterioration of critical infrastructure and service delivery at a time when it is recording rapid urban growth. The chapter defies the modernist urbanisation perspective by arguing that African urbanisation differs from the global North and should be understood using a more grounded approach informed by African urban realities. Furthermore, Norton is a small town, and its experience should also be understood in the context of the role of small towns in linking rural areas and major cities, as well as the relationships between urban and rural areas. The chapter concludes that as a small and economically struggling urban centre that links the capital city and the rural hinterlands, urban governance challenges and the presence of rural-like practices do not take away its urbanity.

Nicholas Muleya, in Chap. 14, employs the 'genius loci' concept to analyse the particularities and potentialities of Beitbridge, a border town in Zimbabwe.

While raising a torch on the natural and man-made aspects in both rural and urban, this chapter seeks to unlock the Beitbridge-ness of the city to enhance urban Beitbridge's public space quality. The chapter follows a qualitative design with a phenomenological strategy of enquiry, which is a window to study the Beitbridge 'life world' and take the elements of 'genius loci' for granted. Nicholas has generated a framework for 'genius loci-public place' to guide the Beitbridge public space system, micro- and macro-level urban planning.

In Chap. 15, Kudzai Chatiza and Tariro Nyevera focus on Zimbabwe's urban history and governance traditions using the case of Masvingo. Masvingo has a rich and unique governance and growth whose story draws on its proximity to the Great Zimbabwe and related tourism assets, being the oldest urban settlement, having hosted the first colonial Fort and the socio-economic structure of its hinterland. Kudzai and Tariro indicate that Masvingo city's political, social and economic importance in Zimbabwe is often inadequately understood. Hence, in the chapter they argue that this denies Zimbabwe's urban planning and governance some critical lessons on urban governance and place making. Drawing on literature, key informant interviews, focus group discussion (FGD) sessions and a household survey targeting Old Mucheke and Victoria Ranch households, the chapter discusses lessons from the city's governance and spatial growth.

Lastly, Chap. 16 by James Chakwizira, Abraham Matamanda, Verna Nel and Kudzai Chatiza provides concluding remarks and a future research agenda on secondary cities based on the cases presented in the book. The authors argue that reflecting on the past and present of secondary cities' spatial planning and governance dynamics offers exciting scenario building opportunities that inform engagement with urban futures linked to models that create resilient cities that are competitive, just and sustainable. The chapter makes use of a content and thematic approach in reflecting on the main messages being proffered by various chapter contributions to this book. James and his colleagues capture practical ways to negotiating cracks, curves and contours of urbanity, post-colonial spatial identities and economies of African secondary cities. The policy, planning and decision-making implications of a refreshed understanding of the story line of secondary cities demonstrate the complementary and catalytic roles they play in allocating and managing socio-economic and spatial growth dividends in rapidly extending Southern African urban landscapes.

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Part I
Urban Governance and Urbanisation

Chapter 2
Rapid Urbanisation and Urban Governance Responses in Chitungwiza, Zimbabwe

Tazviona Richman Gambe

Abstract Rapid urbanisation coupled with poor urban governance in most African cities has resulted in uncontrolled urban sprawl, discordant spatial developments, and informal land governance systems. In Chitungwiza, urban land governance had been hijacked by politically backed housing cooperatives and land barons who became the planning authority. This chapter explores the different strategies that can help Chitungwiza Municipality improve its urban land governance system and make the process generally beneficial to the residents. The study used both primary and secondary data sources. The data was analysed using trend analysis, simple descriptive statistics, and thematic analysis. It found that an informal land delivery system in Chitungwiza led to illegal developments, some located in sensitive areas such as wetlands and within the flood plains of the city's water courses. Therefore, the study recommends policy interventions that aim to eliminate informal/corrupt land governance practices in Chitungwiza. Such policies include creating and maintaining an electronic land database, which is updated regularly to show changes in land ownership patterns in the city. This should be preceded by comprehensive mapping of the city's land area showing different land uses and land ownership patterns.

Keywords Densification · Spatial developments · Service delivery · Urbanisation · Urban land governance · Urban sprawl

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2.1 Introduction

Rapid urbanisation and poor urban governance in most African cities have resulted in accelerated urban sprawl, discordant spatial developments, and the sprouting of highly informalised land governance systems. Since the turn of the century, the population in sub-Saharan Africa has grown rapidly at an average annual rate of 2.5% (Akintunde et al. 2013: 148; UNDESA-PD 2022: 5). In contrast, the per capita income growth in Africa has been depressed, oscillating around 1% per year. For example, from 2018 to 2021, per capita growth rates in Africa were 0.6%, 0.2%, −4.6%, and 1.3%, respectively (UNDESA 2022: 102). Because the rate of urbanisation is higher than economic growth, most cities are associated with increasing poverty levels (Zhang 2016). Furthermore, food insecurity has increased among the urban poor as sprawling cities invade agricultural land (Jiang et al. 2021). The outward expansion of cities also increases the cost of providing urban infrastructure and associated municipal services in urban areas (Dodman et al. 2017; van Noorloos and Kloosterboer 2018; Zhang 2016).

Both central and local governments are under intense pressure to meet the growing demand for additional infrastructure and municipal services in urban areas. Yet, they cannot meet the demand. Inevitably, 70% of the urban population in Africa lives in unplanned/informal settlements, with the majority being unemployed or dependent on informal jobs (Zhang 2016). In Zimbabwe, the situation is exacerbated by a prolonged economic crisis. Consequently, good urban governance has become relevant as cities and towns grapple with declining revenue collection, political interferences in land administration, and increasing susceptibility to natural disasters. Parallel governance structures have emerged that have usurped the authority of local governments to plan and govern land resources within their boundaries. As such, the growth and development of cities have become chaotic and difficult to govern.

This chapter explores the different strategies that secondary cities such as Chitungwiza can adopt to improve the land governance system. The motivation for the study comes from the need to revise the land development and distribution system. The system had become highly informal, with politically backed housing cooperatives and land barons grabbing, subdividing, and illegally selling municipal land. In some cases, the land was distributed on a political party basis to increase the support base of the concerned party. However, the whole process was implemented in contravention of the council rules and regulations. Open spaces (both active and passive) have become infill developments, and residential developments have invaded wetlands and river buffers, increasing the susceptibility of residents to natural disasters such as flooding.

The concept of urban governance guides the conceptualisation of phenomena in this study, though the specific focus is on land administration. Despite its ambiguity, the concept of urban governance is applicable in spatial planning or in the general work of local government (Obeng-Odoom 2012). In its simplest form, governance involves making decisions and implementing them. Urban governance involves the

concerted efforts of urban local governments and their development partners to carry out harmonious urban developments (Obeng-Odoom 2012). The study adopts the view that good urban governance is an invaluable aspect of spatial planning and development, which is associated with orderly spatial developments, an effective system of urban land administration, and reduced outward expansion (Badach and Dymnicka 2017; Harpham and Boateng 1997; Turok 2016).

The study adopted a mixed approach that is predominantly qualitative. Although primary and secondary data sources were used, the study was primarily dependent on secondary data. Quantitative data extracted from the Global Human Settlements Urban Centre Database 2015 (GHS-UCDB 2015 R2019 V1.2) (Florczyk et al. 2019) was used to calculate the rate of population growth in the city, density changes, and the city's outward expansion rate. The database is novel and provides data for global cities in four periods: 1975, 1990, 2000, and 2015. To promote a common understanding of terms associated with the database, urban extent refers to the total area of the city. The urban extent is composed of the city's built-up area and open spaces (Angel et al. 2021). Built-up area (BUA) density is calculated by dividing the city population by its built-up area. Saturation is calculated by dividing the city's BUA by the urban extent. Thus, the saturation ranges from 0 to 1. A result closer to 0 depicts a city where the proportion of BUA is lower than open spaces (Angel et al. 2021). Compact cities have high saturation levels because their rate of outward expansion is lower than the growth of the developed area. In comparison, sprawling cities have low saturation levels and are demanding because they are associated with high costs of infrastructural development and service provision.

Qualitative data was collected through document analysis, with a bias on land governance literature focussing on Chitungwiza. The documents that were analysed include published research articles, government documents, newspaper articles, newsletters, municipal reports, and judicial case summaries. Documents considered relevant to the study were purposively selected considering their contribution to constructing the narrative of the informal land governance system in Chitungwiza. To fill the data gaps generated from secondary sources, the researcher conducted key informant interviews with city officials representing the city planning section, the housing and community services section, the chamber secretary department, and two councillors of different political parties. Furthermore, five participants (community/business leaders who started residing in Chitungwiza before independence) considered to be knowledgeable about the development of Chitungwiza were purposively selected. Unstructured interviews were used to collect data from the previously mentioned participants. Observation was also used as a data collection method. The data was analysed using trend analysis, simple descriptive statistics, and thematic analysis.

This chapter is divided into six sections. The following section focuses on governance, planning, and management issues in Chitungwiza. This is followed by the third section, which discusses the city's historical development. The section is divided into subsections that focus on the development trajectory, the urbanisation dynamics, and the economic issues. The fourth section addresses the issue of land administration and infrastructure planning and development. In

this section, the issues discussed include land governance in Chitungwiza, the city's response to informality, and the implications on financing and provision of municipal services. The fifth section, which examines lessons for sustained development and governance in Chitungwiza, is followed by the conclusion of the chapter.

2.2 Municipal Governance, Planning, and Management of Chitungwiza

Chitungwiza, the third largest city in Zimbabwe, is located approximately 25 km south of Harare (Fig. 2.1). The city is considered part of the Harare Metropolitan Province since it was established as a dormitory town.

In 2012, Chitungwiza had a population of 356,840, with the majority (52.8%) being females (Zimbabwe National Statistics Agency [ZIMSTAT] 2013). Many residents are employed in Harare and therefore commute to and from the capital daily. Chitungwiza Municipality (CM) is controlled by opposition parties. The city has been a battleground of political parties, mainly the ruling Zimbabwe African National Union-Patriotic Front (ZANU PF) and the Movement for Democratic Change (MDC). Citizens Coalition for Change (CCC) has emerged and won some seats during council elections held in the first quarter of 2022, becoming one of the

Fig. 2.1 Chitungwiza's location in relation to Harare. (Source: Google Maps 2023)

dominant opposition parties involved in running the affairs of Chitungwiza. As will be discussed later in the chapter, the political battle for the city control was the seedbed of a corrupt and informal land governance system.

Chitungwiza is one of the fastest growing secondary cities in Zimbabwe. The study found that the city is governed by a council of 25 ward councillors, including the mayor and deputy mayor. The Integrated Development Plan guides the council and outlines how the city intends to achieve its goals. Portfolio committees within CM exercise some monitoring role on the by-laws and policies that are created by the council. The mayor leads the local governance issues, and the mayoral roles and responsibilities are derived from Urban Councils Act and authority delegated by the council.

Chitungwiza's vision is to become a smart heritage city by 2030. The city's mission is to administer and provide reliable quality service delivery for sustainable growth within the municipality. From this, the Chitungwiza Municipality Chamber Secretary Department (CMCSD) indicated that the city is trying to address the challenges experienced by residents through the formulation and implementation of short- and long-term goals. As noted by CMCSD:

> *The city's goals and priorities in the near future include: (i) reducing housing shortages by 2030, (ii) no litter and garbage in the city by 2025, (iii) free water supply by 2030, (iv) sustainable and conducive conditions for all i.e. educational facilities being close to learners and urban greening, and (v) better roads by 2030.*

To reduce acute housing shortages, CMCSD highlighted that the city has resolved to expand southward, thus incorporating Bremma Farm, which will be converted into residential developments. To address the water woes in the city, the municipality is working to develop Muda Dam (Gokoko 2020). This dam is expected to provide a sustainable solution to the water shortages that plague the city. Meanwhile, CMCSD noted that the city benefits from the Presidential Borehole Drilling Scheme. Apart from that, the municipality has increased the labour and refuse compactors to collect garbage in the city. This is meant to address the widespread challenge of littering.

The strategic planning exercise in Chitungwiza is participatory. The CMCSD indicated that local communities have been involved in this exercise through their councillors, who conduct full council meetings on Fridays. Through this platform, councillors can present the needs and aspirations of their constituencies. Local communities also can participate in council affairs through online platforms that include Twitter and Facebook. To describe the relationship between the city and local communities, the CMCSD had this to say, 'we have a cordial relationship that makes sharing of challenges and ideas possible, especially in the formulation of goals that seek to make Chitungwiza an inclusive and liveable environment'. Despite this, corruption issues among some councillors and council staff had strained this relationship. Most of the respondents feel that the authorities did not do much to curb corruption of residential land in Chitungwiza (Civic Action Teams [CivActs] 2021). The municipality must demonstrate that it has reformed and has a renewed commitment to addressing the needs of the residents.

2.3 Historical Perspective and Context of Chitungwiza

2.3.1 The Development Trajectory

Chitungwiza emerged as a dormitory settlement of the capital Harare. It was developed by combining Seke, Zengeza and St. Mary's and was granted municipal status in 1981 (Nyamwanza and Mandizadza 2014). It emerged from the study that informality has been a part of Chitungwiza since its inception. The senior resident 1 (SR1) indicated that in the Seke district, initial informal settlements such as Chirambahuyo were inhabited by migrants from the surrounding rural areas who could not find jobs in the then Salisbury (i.e. around 1978 and 1979). Without employment, it was difficult for migrants to reside in the capital. Thus, they settled on the outskirts of the city, in Chirambahuyo. In collaboration, SR2 had this to say:

> *When Bishop Abel Muzorewa became the Prime Minister of Zimbabwe-Rhodesia in 1979, he was responsible for constructing Unit H and Unit N in the Seke district to resettle people formally. The latter was mainly meant to accommodate the ZIPRA ex-combatants.*

Although Chirambahuyo was demolished shortly after independence, another unplanned settlement emerged in Mayambara. People who migrate from rural areas to seek better economic opportunities in urban areas settled in this unplanned settlement. In the other districts of Zengeza and St. Mary's, settlements had already emerged before independence. In the Zengeza district, Zengeza 4 was developed mainly to accommodate ZANLA ex-combatants. SR3 indicated that the area had a military camp for the Zimbabwe African National Liberation Army (ZANLA) forces. In St. Mary's district, Old St. Mary's was also developed before independence. The settlement was named after St. Mary's Mission, which the Anglican Church in the area established. SR4 indicated that:

> *Chitungwiza was not meant to be an industrial city, but was developed to accommodate employees working in Harare's industries. A section called 'CA' in St. Mary's is an area that was constructed by the Civil Aviation Authority of Zimbabwe to house its workers.*

As a city developed for Harare workers, industrial development in Chitungwiza was minimal. The functioning of the real property market also contributed to the growth trajectory of Chitungwiza. As a satellite settlement, the prices of different types of real property (vacant land, residential, commercial, retail, industrial, offices, etc.) are relatively cheaper in Chitungwiza. Most people who could not afford to buy properties in Harare's low-income suburbs found Chitungwiza an option. Since it is only 25 km from Harare, prospective buyers are not discouraged: the distance is considered short for those who must commute to and from Harare, especially for those plying their businesses in the capital. In Chitungwiza, a standard 7-room house (4 bedrooms, separate lounge, dining area, and a kitchen) has an average selling price of US$25,000 to US$40,000 depending on location, age, design, and types of building materials used. In comparison, similar properties in the low-income suburbs of Harare cost between US$35,000 and US$60,000. The price differences lured some home seekers who could not afford Harare properties to invest in Chitungwiza properties. The ballooning housing waiting list in Harare worked in favour of Chitungwiza.

2.3.2 The Urbanisation Dynamics

The rate of urbanisation has been slowing in Chitungwiza (Table 2.1), dropping from a compound annual growth rate (CAGR) of 3.4% between 1975 and 1990 to a rate of 1.4% between 2000 and 2015. The Chitungwiza growth trajectory is somewhat comparable to Harare and is higher than in other secondary cities such as Gweru and Mutare (Table 2.1). The change in population in Chitungwiza over the past 40 years is approximately 144%. This is slightly lower than the percentage change in Harare, but is higher than the changes experienced in Gweru and Mutare.

However, the annual incremental population was higher in the primary city than in secondary cities. Notwithstanding this, Chitungwiza had an incremental annual population of 6,609 over the past 40 years. This additional population represents the net growth, considering the natural increase and net migration. The pressure for additional urban infrastructure, especially housing, has been higher in Chitungwiza than in other secondary cities.

The growth of Chitungwiza's footprint in the last 40 years has mainly been the extension of the built-up area rather than the outward expansion. Over 40 years, the built-up area of the city trebled, yet its urban extent experienced a 47% change (Table 2.2). The saturation level of the city increased from 0.2 in 1975 to 0.5 in 2015. Consequently, urban sprawl was limited in Chitungwiza compared to Harare and Mutare, cities with declining saturation levels. The built-up area density in Chitungwiza declined from 1975 to 2000 but increased slightly between 2000 and 2015. This has been influenced by the growth rate of the built-up area, which was higher than the population growth rate between 1975 and 2000, but smaller than the latter between 2000 and 2015. The decrease in BUA density over time can be linked to the parallel urban land governance structures that illegally distribute municipal land. Therefore, informal rather than formal processes drove the growth of the city's built-up area.

Table 2.1 Population growth in selected Zimbabwean cities (1975–2015)

City	Population 1975	Population 1990	Population 2000	Population 2015	Percentage change (1975–2015)	Annual incremental population (1975–2015)
Harare	765,398	1,322,061 (3.7%)[a]	1,573,937 (1.8%)	1,934,205 (1.4%)	153	29,220
Chitungwiza	183,994	302,336 (3.4%)	366,622 (1.9%)	448,363 (1.4%)	144	6609
Gweru	73,975	120,708 (3.3%)	139,426 (1.5%)	164,533 (1.1%)	122	2264
Mutare	69,674	115,861 (3.4%)	131,089 (1.2%)	159,616 (1.3%)	129	2249

Source: Author's calculation using GHS-UCDB 2015 R2019 V1.2 data

[a]Figures in brackets represent CAGR calculated between 2 years, e.g. 3.7% is the CAGR for the period 1975–1990

Table 2.2 Growth patterns of selected cities in Zimbabwe (1975–2015)

City	1975	1990	2000	2015	Percentage change 1975–2015
City's total area/urban extent (sq. km)					
Harare	132	330 (6.3%)	396 (1.8%)	486 (1.4%)	268
Chitungwiza	34	40 (1.1%)	47 (1.6%)	50 (0.4%)	47
Gweru	0	29 (–)	35 (1.9%)	40 (0.9%)	–
Mutare	15	21 (2.3%)	28 (2.9%)	30 (0.5%)	100.0
Built-up area (sq. km)					
Harare	73.48	127.45 (3.7%)	188.45 (4.0%)	195.71 (0.3%)	166
Chitungwiza	6.53	16.99 (6.6%)	24.33 (3.7%)	26.73 (0.6)	309
Gweru	3.82	6.86 (4.0%)	8.01 (1.6%)	8.81 (0.6%)	131
Mutare	4.46	6.28 (2.3%)	8.37 (2.9%)	8.58 (0.2%)	93
Built-up area density (number of people per sq. km)					
Harare	10,417	10,373 (−0.03%)	8,352 (−2.1%)	9,883 (1.1%)	−5
Chitungwiza	28,159	17,792 (−3.0%)	15,070 (−1.6%)	16,774 (0.7%)	−40
Gweru	19,349	17,607 (−0.6%)	17,415 (−0.1%)	18,672 (0.5%)	−4
Mutare	15,624	18,451 (1.1%)	15,669 (−1.6%)	18,596 (1.1%)	19.0
Saturation					
Harare	0.6	0.4 (−2.4%)	0.5 (2.1%)	0.4 (−1.1%)	−28
Chitungwiza	0.2	0.4 (5.4%)	0.5 (2.0%)	0.5 (0.2%)	178
Gweru	–	0.2 (–)	0.2 (−0.3%)	0.2 (−0.3%)	–
Mutare	0.3	0.3 (0.04%)	0.3 (−0.01%)	0.3 (−0.3%)	−4

Source: Author's calculation using GHS-UCDB 2015 R2019 V1.2 data

Informal urban expansion usually occurs generally faster (Turok 2020), as the process does not consider the formal procedures of applying for planning permission before development commences. The key drivers influencing demographic and population changes in Chitungwiza are the natural increase and the net effect of migration. Regarding migration patterns, the 2012 census showed that 3% of migrants in Chitungwiza originated from other districts within Harare province, while 11% emigrated from other provinces – mainly Mashonaland East (ZIMSTAT 2013). The other factor that explains the changes in population includes the incorporation of the areas surrounding Chitungwiza into its boundaries. The population of the surrounding areas automatically increases the total population of Chitungwiza.

2.3.3 The City's Economy

Agglomeration economies played a role in the growth of Chitungwiza. The population concentration attracted investors to the city. SR5 noted that Cone Textiles was one of the first major companies to set up in Chitungwiza specialising in manufacturing different types of fabric. As Cone Textiles expanded its operations, some supporting logistics companies were needed. As such, GDC Logistics was established and located close to Cone Textiles, in the industrial area along Chitungwiza Road. GDC Logistics offered transport services to Cone Textiles and other companies that required transport services. With time, other firms such as Chibuku Breweries, Dairibord Holdings, United Bottlers, Grain Marketing Board, and Zimbabwe United Passenger Company (ZUPCO) were also established in Chitungwiza. However, the formal industrial base remained small, absorbing a small number of job seekers. A significant number remained employed by industries in the capital. During its peak period, the textile industry became the city's economic base, as products were sold locally and abroad.

Cone Textiles collapsed in the mid-1990s. Its closure was linked to trade liberalisation, an outcome of the Economic Structural Adjustment Programme (ESAP) introduced by the central government in 1991. The stiff foreign competition caused by ESAP had negative effects on the weak and unprepared local manufacturing industry (Carmody 2008). By 1994, the majority of firms in the textile, clothing, and footwear industries started collapsing, and this was followed by large-scale closures, mainly in the textile industry (Carmody 2008). A huge debt crippled Cone Textiles, a lack of capital to replace its ageing plant and machinery, and an inability to access raw materials on a credit facility (The Herald 2019). Modzone Enterprises replaced Cone Textiles, but the company also closed around 2012.

The closure and downsizing of formal industries gave room to the mushrooming of informal industries, including brick moulding, metal work, carpentry, stone sculpture, motor mechanics, and the sale of different products. As such, the economy of Chitungwiza is currently dominated by informal industries (Nyamwanza and Mandizadza 2014). There is still a small formal industrial sector. Surface Wilmar Zimbabwe and Southern Granite are some of the main manufacturing industries currently operating in Chitungwiza. These two constitute the economic base of the city today. The former exports cooking oil, margarine, stock feed, and lint to countries within southern Africa and beyond. The latter is involved in the export of processed granite to countries overseas. Dairibord Holdings and Chibuku Breweries are also operational, but have been downsized. Other companies still based in Chitungwiza include Gain Cash and Carry (a trading company), ZIP Plastics (specialising in the production of different types of plastics), Shenlong Blankets (specialising in the manufacturing of blankets, bedding sheets, and pillows), and Chromburg Enterprises, which is a logistics company. Following the collapsing of the formal industrial base of the city, most residents are employed in the informal sector and the public sector. The departments and offices of the local and central government employ a significant number of residents.

The decline of the formal industry in Chitungwiza has affected the city's economy, which has declined over the years. The Chitungwiza Municipality Housing and Community Services Department (CMHCSD) noted that unemployment has increased significantly and has partly caused some antisocial behaviour, especially among the desperate youths in the city. Furthermore, CMHCSD indicated that drug abuse among unemployed youth has increased significantly. Economic decline has also affected the financial status of the municipality. Most of the residents do not pay their rates and taxes. This has reduced municipal revenue, which is greatly needed to improve the provision of different municipal services. The municipality is currently struggling to provide adequate water services. The state of the roads in the city is deplorable. Limited revenue has compromised the ability of the city authority to carry out road maintenance works. Both the CMHCSD and the CMCSD concurred that the devolution grant from the central government has covered some ground, but it falls short of the work that needs to be done.

2.4 Land Administration and Infrastructure Planning and Development

Land governance in Chitungwiza has been marred by contestation between the central and local governments, especially in local authorities dominated by opposition parties. Land has been and is still used as a tool for political expediency. Therefore, local authorities are political battlegrounds, with political parties fighting for control of the land. The fight escalated after the Fast Track Land Reform Programme (FTLRP) of 2000. FLRP impacted access to housing land, which the ruling ZANU PF mainly used as a campaign tool (Muchadenyika 2015). In addition to being an economic asset, expanding land became an important political tool (Chiweshe 2020; Muchadenyika 2015). Land barons and housing cooperatives aligned to the ruling ZANU PF took over the control of substantial tracks of housing land in both urban and peri-urban areas (Muchadenyika 2015).

The aftermath of the FTLRP saw the intensification of land corruption in Chitungwiza, with legislators from both the ruling ZANU PF and the opposition MDC being active players (Chiweshe 2020). The MDC had the political control of the city since the early 2000s. However, its grip on land administration was weakened by the interferences of the ZANU PF-dominated central government in the governance of local authorities (Makunde 2016). The interference was in the form of direct orders from the Ministry of Local Government, Public Works and National Housing (MLGPW&NH) concerning how the city's affairs should be handled. Ministers of MLGPW&NH (mostly members of the ruling ZANU PF) take advantage of the ministry's supervisory role to impose the wishes of their party on local authorities. Accordingly, ministers are known for firing or suspending elected councillors mainly in the opposition-led cities/towns, and replacing them with commissions dominated by ZANU PF sympathisers. Apart from that, most farms

surrounding cities/towns are state land, and the ruling ZANU PF has a greater influence on how state land is administered (Muchadenyika 2015). The ruling party has used this loophole to allocate land to its supporters in exchange for votes. The land was allocated to housing cooperatives aligned with ZANU PF and land barons, who distributed it partisanally. This led to the explosion of unplanned peri-urban settlements.

The emergence of housing cooperatives created parallel authorities (McGregor and Chatiza 2019) that developed into a dominant informal land administration system. In Chitungwiza, housing cooperatives and land barons backed by the ZANU PF usurped the council's authority to administer the land and collect revenue. This is exemplified by the high court case of Chitungwiza Municipality (CM) vs. United We Stand Co-operative (UWSC) and Fredrick Mabamba. An urgent chamber application was submitted in 2013 by the complainant (CM) seeking a provisional order interdicting the respondents (the late Mabamba and his UWSC) from operating as a parallel municipal structure. In the case summary, it was noted that:

> *The applicant complains bitterly that the first respondent, which the second respondent heads, has now clothed itself with municipal authority to allocate land to its members without its approval, to sell stands to individuals for a price and to collect revenue. It also approves building plans. In short, the first respondent has usurped the function of the applicant it having constituted itself as a parallel municipal structure (Chitungwiza Municipality v United We Stand Co-operative & Fredrick Mabamba (2013) HH 3-14 HC 10883/13).*

Before the chamber application, illegal developments by respondents had been regularised in 2011. However, the respondents took advantage of this and continued to subdivide land, allocate stands, and issue development permits. An interdict was granted pending the full determination of the case, prohibiting the respondents from undertaking land allocations, inspection of buildings, and collection of revenue from residents of the Chitungwiza/Seke area.

The informal land administration system in Chitungwiza made development control efforts by CM difficult. Active participation of councillors in the rot worsened the situation. Legislators joined the bandwagon of allocating housing land to their supporters in areas where development is prohibited (Makunde 2016). The extent of illegality took different forms in different areas. It included the conversion of football pitches into residential developments (an observation was made of a football pitch in Unit K that was converted into a residential development) and construction of houses on top of sewer trunk lines and under electricity lines (this was observed in Unit L Extension, an area popularly known as *Kwa Chigumba* [section developed by the late ZANU PF politician called Christopher Chigumba]). Furthermore, the illegality included housing construction on railway and road servitudes, wetlands (observed in Zengeza 4 wetland and along a stream that separates Unit J and Unit K – houses were built within the buffer zone), areas surrounding cemeteries (observed in Unit L Cemetery: some houses were built within the demarcated area of the cemetery, that is, a few metres from nearby graves), and invasion of land reserved for institutional and recreational facilities (Gokoko 2020). In general, approximately 35% of Chitungwiza residents have been sold land illegally (CivActs 2021).

Local authorities are empowered by the Regional, Town and Country Planning Act [Chapter 29:12] (RTCP Act) of 1996 to demolish illegal structures, yet in most cases the demolitions are halted by the central government. The motivation behind the intervention of the central government is political, though disguised as humanitarian. However, it manifests power contestations between the ruling ZANU PF and opposition political parties that control the majority of urban local authorities. By halting demolitions, the ZANU PF has the opportunity to protect its supporters, who make up the majority of the beneficiaries of illegal land deals. However, it is worth noting the seasonal nature of the protection. During the period of impending elections, the ruling party usually engages in a rhetoric overdrive to halt the demolition of illegal structures in urban areas. Rather, more illegal structures are constructed during this time, allowing supporters of ZANU PF to register as voters in urban areas. This is meant to neutralise the dominance of opposition parties in urban local authorities. In the aftermath of the election, latitude is given for demolitions to proceed. The central government justifies demolitions as a way of cleaning up the filthy created in urban areas by the failure of governance of opposition parties. However, believing this narrative is tantamount to missing the elephant in the room.

Land barons' arrest in 2018 significantly reduced the catch and release instances that were rampant under the Mugabe era. However, SR4 and SR5 indicated that the arrests were motivated by factional fights within ZANU PF. The majority of the land barons aligned with ZANU PF were members of a faction known as Generation 40 (G40) which purportedly supported the ascendency to the presidency of former first lady Grace Mugabe while opposing the aspirations of Emmerson Mnangagwa. The grabbing of municipal land by these members dates back to the time when Ignatius Chombo and Saviour Kasukuwere (some of the alleged leaders of G40) were ministers of MLGPW&NH. These two created conditions for their cronies to hoard land. However, this changed when the Mnangagwa-led 'Lacoste' faction managed, with the assistance of the military, to win the factional fight by overthrowing Mugabe in a coup d'état in November 2017. Most G40 members were fired from the party and government, while others went into exile. In Chitungwiza, the late land baron Mabamba was allegedly a G40 member, and this is why he was arrested and tried by the ruling Lacoste faction. SR5 alleged that some land barons belonging to the Lacoste faction were never arrested and are currently walking free. Despite being considered a political move, the arrest of land barons in 2018 stopped the rampant grabbing of municipal land in Chitungwiza, although its distribution is yet to improve.

The population growth in Chitungwiza has exceeded the capacity of the urban infrastructure. The situation has been worsened by the informal nature of urban expansion. The growth of the city caused an acute shortage of housing. This is one of the reasons behind the emergence of unplanned/illegal settlements. Although unplanned settlements can be argued to have eased housing shortages, they increased pressure on existing water, sewerage, and road infrastructure. However, CMCSD indicated that the Presidential Borehole Drilling Scheme has improved the water infrastructure in the city, thus reducing water shortages. Through this scheme, Harare and Chitungwiza are set to acquire over 200 solarised boreholes

(Madzimure 2022). Currently, 20 have been drilled in Chitungwiza and 6 of them are already functional (Madzimure 2022). Despite these positive developments, the municipality still maintains that the construction of the Muda Dam will sustainably address the challenges of water service delivery experienced in the city (Gokoko 2020).

Social services such as schools and clinics are finding it difficult to adequately meet the needs of residents. There are currently 28 secondary and 38 primary schools in the city. Of the 28 secondary schools, 10 are government-run and 18 are privately owned. In contrast, 17 primary schools are owned by the government, 9 by the municipality, and the remaining are private schools. Despite this, government and council schools that are affordable to most residents have to offer morning and afternoon sessions because their infrastructure is not adequate to serve all learners at the same time. In addition to being overwhelmed by the pressure of residents requiring health services, Councillor 1 indicated that the situation in three public clinics has been worsened by an acute shortage of drugs and other necessary equipment.

2.4.1 The City's Response to Informality

The city's response to informality has been hostile for two main reasons. Firstly, when Chitungwiza Municipality (CM) regularised some earlier illegal settlements, housing cooperatives and land barons considered this as a loophole that could be consistently exploited. As such, they increase the scale of illegal land dealings, advising beneficiaries that the illegality would be regularised. Secondly, most illegal developments are associated with supporters of the ZANU PF. Thus, an opposition-dominated council has the motivation to demolish the informal housing developments as a move to demonstrate to the ruling ZANU PF government that the council is in control of the city affairs and partly to gain political mileage. However, CM indicated that an attempt to stop the mushrooming and the expansion of informal settlements is usually frustrated by the central government's interference in city affairs. Despite having obtained court orders permitting the demolition of illegal structures, the process is usually stopped by the central government through ministerial orders.

Environmental disasters (mainly flooding) in the city are prevalent in unplanned/informal settlements, especially those in wetlands and within stream/river buffers. Consequently, the CMHCSD has increased the number of security personnel that monitor construction activities in the city. This is done to prevent further invasion of sensitive areas and other prohibited areas. The strategy is also to ensure that the evicted land invaders do not return and start reconstruction work. The municipality has been serving prohibition and enforcement orders and reporting offenders to the police. Furthermore, the municipality has also approached the courts where necessary. This is epitomised by the aforementioned court case involving Chitungwiza Municipality vs. United We Stand Co-operative and Fredrick

Mabamba. However, CM has been tolerant of micro, small, and medium enterprises that follow the stipulated guidelines to acquire land for their operations. Councillor 1 indicated that entrepreneurs specialising in art and crafts who applied for workplaces have received licences from the municipality. This is a positive move toward embracing informality in the city.

2.4.2 Financial and Service Delivery Implications

The informal land governance system has greatly affected the council's financial capacity. Proceeds from the sale of land and revenue collected from beneficiaries of illegal developments did not accrue to the local authority, but to the players controlling the informal system (Makunde 2016; McGregor and Chatiza 2019). In 2016, more than 9000 stands were sold by land barons outside of the council's formal allocations (Makunde 2016), prejudicing the municipality's potential revenue. The example of a case against one of the major land barons shows the extent of financial losses suffered by CM. Between 1999 and 2021, the late Mabamba (a former Chitungwiza councillor, deputy mayor, and land baron who collapsed and died in police custody) and his cooperative (UWSC) are alleged to have illegally sold CM's land (approximately 3901 stands) worth more than US $ 16 million and pocketed US $ 13.7 million (Maphosa and Chidhakwa 2021). The case of the late Mabamba (which is one among many) exemplifies how the CM lost potential revenue from the sale of land, plan processing fees, and municipal levies that were collected by housing cooperatives and land barons. With low revenue flows, it became difficult for CM to maintain the water, sewerage, and transport infrastructure.

The growth of the population has outperformed the provision of services in Chitungwiza. Despite the emergence and proliferation of unplanned settlements in the city, shortages are still experienced in the housing sector. This has become one of the most challenging phenomena in the city governance process. The growth of the city's population has exceeded the design capacity of the water infrastructure, and therefore acute water shortages are widespread. Due to the shortages of large water bodies in Chitungwiza, the city purchases bulk water from Harare. Daily purchases are approximately 28–30 megalitres, but this is below the daily demand of approximately 45 megalitres (Gambe 2019). Water shortages have made residents vulnerable to the outbreak of waterborne diseases. Residents struggle to find alternative water sources and end up consuming contaminated water from unprotected shallow wells. This exposes them to diseases such as cholera, dysentery, and typhoid. The situation is aggravated by rampant sewer blockages and overflows. Chitungwiza is popularly known as *Kuma sewage* – meaning a city characterised by sewer overflows. However, Councillor 2 and SR1 agree that sewer overflows have disappeared recently due to water scarcity. The overflows occasionally reappear when water supplies are restored for more than 2 days.

2.5 Lessons for Sustained Development and Governance

Various lessons for sustained development and governance in Chitungwiza emerged from the study. Firstly, the inelasticity of the supply of building land and housing in the formal administration process creates fertile ground for the emergence of informal systems. No voids should exist in urban governance because certain forces will emerge and fill them. In 1996, the land administration system in Zimbabwe was effective, yet its complexity made it fail to respond timely and adequately to rapid urban growth and the needs of low-income urbanites (Rakodi 1996). The failures of the system created a vacuum in terms of supply that was exploited by housing cooperatives and land barons. Informal rights in land do evolve in circumstances where the formal system of housing land delivery is failing to satisfy the demands of the ever-increasing urban populations (Rakodi 1996). This is what transpired in Chitungwiza. Although the contestations for dominance and control of Chitungwiza contributed to its demise, the ruling ZANU PF exploited an existing void. If ZANU PF had not exploited it, then the urban poor (without political backing) would have done so.

Urbanisation of poverty in African cities (Zhang 2016) is a reality that needs to be incorporated into urban governance systems. Embracing that informality is now an inevitable aspect of African cities (Bolay 2015; Geyer 2006; Mutami and Gambe 2015) can help the CM to review its governance systems, responses, and processes. The city's hostile response to informality emanates from its view that the whole process is political. Yet, by so doing, the city authorities miss the bigger picture, i.e. most urban residents are poor and depend on informal economic activities for survival. The city council should therefore play its part to make the city an inclusive, liveable, and productive place by addressing the needs of both the rich and the poor. In fact, more attention should be paid to the urban poor, since 94% of the city's 54,000 housing units are in the low-income category. Failure to address the needs of the poor results in widespread informality. This is the only way urban poor can claim their right to the city since they are rarely consulted or involved when planning decisions are made (Bolay 2015). Commenting on African cities, Bolay (2015: 418) note that many residents are:

> *poor, but the poor who act, who create their employment – often informal, their housing, and their neighborhood. And they do so – this self-construction of the city – while confronting other forces: the land market, the real estate industry, distributors of technical networks, not to mention the public authorities and their administrative arms … . These practices, formal and informal, that make the African city, are yet to be anchored in innovative modes of urban governance, based on the facts and actions taken by the residents.*

The informalisation of urban governance and planning processes is a common practice in low-income countries in southern Africa. For example, the expansion of Maputo has been largely informal. Government and city authority officials have been involved in the planning of informal settlements but without acting in their capacity as government and local authority employees (Andersen et al. 2015). This process has produced settlements that resemble the planned ones in terms of

orderliness and patterns: this made city authorities face difficulties in distinguishing between planned and unplanned settlements (Andersen et al. 2015). For Chitungwiza, the lesson is to embrace informality and be a leader rather than trailing the urban poor. There is room to positively influence the informal processes if the CM takes the lead role.

Chitungwiza has comparatively done well in reducing urban sprawl. The outward expansion over the past 40 years was minimal. The expansion of the built-up area was commendable to encourage compact developments. However, this lacked strategy and guidance as the process was largely informal and unsustainable. Invasion of wetlands by residential developments, construction on top of sewer trunk lines and below electrical power lines, and conversion of playgrounds and football pitches into residential areas are a failure of governance and a total disregard for the sustainability of places. However, such behaviour is associated with a high appetite for 'house ownership' among Zimbabweans, which has increased the demand for housing land. The appetite was enthused by the abandonment of the public rental housing system in the Zimbabwean cities immediately after independence (Rakodi 1996). For Chitungwiza, the reintroduction of public rental housing is a possible strategy that can enable the city to keep pace with the increasing population. For this strategy to work, there is a need to partner with real property financiers that can fund the initial capital outlay. However, investors should have confidence that the municipality can effectively and efficiently govern its area of jurisdiction. Therefore, the success of the strategy is dependent on the ability of the municipality to regain its authority and mandate to control the administration of land in the city.

The planning and development processes in the city should be sensitive to climate change. The Chitungwiza Municipality Town Planning Section (CMTPS) noted that:

> *Changes in rainfall patterns are partly behind the shortages of water supply and food production in Chitungwiza. Land use patterns have greatly changed as spaces that were used for food production are now being diverted to other land uses such as commercial and residential.*

Although there is pressure for land development in urban areas, the sentiments of CMPTS serve as a reminder to central and local governments and the urban population that land use patterns in urban areas should be conscious of food production. The unsustainable use of urban land makes the urban poor more vulnerable to food insecurity. The situation is worsened by the growing water scarcity in cities and towns. Thus, urban governance should recognise the threats posed by climate change to food and water security and create a platform for innovations to address the needs of the ever-increasing urban populations.

2.6 Conclusion

Discordant spatial developments in Chitungwiza have been a result of informal land governance processes that have dominated the city for years. A distorted land delivery system caused widespread illegal developments, some of which are located in sensitive areas such as wetlands and within flood plains of the city's water courses. However, the nationwide crackdown on land barons provided relief to Chitungwiza Municipality. While most land barons have been arrested, it remains to be seen if urban local authorities are going to recover lost revenue. For Chitungwiza Municipality, a chance has been given to regain control of the land and restore sanity in the land administration system. Therefore, the study recommends policy interventions that target the elimination of corrupt/informal land governance practices and encourage a governance system that embraces informality as an inevitable part of city growth and development. Such policies include the creation and strict maintenance of an electronic land database that is updated regularly to show changes in land ownership patterns in the city. This process should be preceded by a comprehensive mapping of the city's land area showing different land uses, land ownership patterns, sensitive areas, and land reservations. The electronic land database should be freely accessible to residents and potential investors from within and outside of the city.

An associated policy strategy would be to create a section within the municipality that manages and updates the land database by collecting data from the engineering, urban planning, and housing departments. A regulation should be enacted and introduced in the city that any physical developments should be cleared by the council's section that manages the land database. The section must establish and certify that the land earmarked for development has no restrictions or other ownership disputes.

Although the proposed electronic land database requires substantial financial investment, especially in the mapping process, it has a greater chance of reducing informal land governance practices while at the same time improving urban land management. The proposed strategy can be implemented in a phased manner and over some time: this reduces the cost burden. Furthermore, the city can partner with higher learning institutions that can map, process, and store data in a compatible and easy-to-access format. There is a higher chance of success in terms of implementing the proposed electronic land database if CM collaborates and partners with higher education institutions than the private sector. Current trends suggest that the economic development of African cities is now tied to universities (Kigotho 2022). Taking advantage of innovations and research ideas generated in universities, the creation and implementation of the electronic land database can be achieved at a reasonable cost.

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Chapter 3
Exploring Nelspruit as a Historical Spatial Jigsaw Corridor-Based Secondary City: A Spatial Governance Geographical Perspective

James Chakwizira

Abstract Nelspruit secondary city is the economic hub of Mpumalanga province under the authority of Mbombela Local Municipality (MLM). Located along the N4 corridor, Nelspruit links Johannesburg, Pretoria, Mozambique and Swaziland. Nelspruit is an expanding city sandwiched in a tourism region. With rapid urbanisation and the implementation of post-1994 apartheid reversal policies, the challenge of managing expanding peri-urban settlements is emerging. Mbombela Local Municipality includes the former Transitional Local Councils of Nelspruit, White River and Hazyview as well as the Transitional Rural Councils of Nelspruit and Nsikazi. Consequently, Nelspruit city reveals a divided urban structure consisting of a previously well-serviced 'white' developed core (i.e. White River, Nelspruit and Hazyview) that is surrounded by an under-serviced 'black' outer urban and peri-urban periphery (i.e. Matsulu, Kanyamazane, Daantjie, Kabokweni and Nsikazi area). Despite recent improvements such as N4 corridor by-pass, R40 upgrade and proposed bus rapid transport (BRT) routes, the urban housing, industrial, commercial, peri-urban and transport systems remain inefficient. Making use of a transit-oriented development theory and approach, Nelspruit's urban development opportunities are highlighted while constraints are discussed. It is concluded that Nelspruit's development model can better integrate land use and transport corridor dividends for enhanced growth of its core and immediate environments. This requires a strengthening of the urban housing, transportation and spatial development frameworks and institutions so that a (new) appropriate, adaptable and resilient system set-up is anchored and reproduced at all scales, places and cultures and over time for inclusive outcomes, outputs and products.

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3.1 Introduction

Mbombela (formerly Nelspruit) is the proclaimed capital of Mpumalanga province since 1994. Historically, the City of Mbombela was established on the advent of the Eastern Railway Line in South Africa. The origin of the name Nelspruit is derived from the three Nel Brothers, Gert (1844–1932), Louis (1846–1919) and Andries (1855–1933), who settled in the Lowveld area from the Highveld between 1883 and 1896 in search of a better agricultural environment specifically to support their sheep and cattle (Bornman 2017).

Mbombela is an outcome of developmental local government agenda which saw the amalgamation of former Umjindi and Mbombela Local Municipalities in 2016 (Mokoena 2017; Ncube and Monnakgotla 2016). The amalgamation was in compliance with and a logical conclusion to the final decision of the Municipal Demarcation Board (MDB) which re-determined some municipalities in South Africa into amalgamated entities (Jeeva et al. 2022). Amalgamation was used as a mechanism to steer the two former municipalities towards financial viability and sustainability (Jeeva and Cilliers 2021). In addition, amalgamation was meant to serve the implantation of spatially effective and efficient local governance systems, adept at responding to, and delivering on their core mandate in tandem with stakeholder expectations. Before amalgamation, Umjindi Local Municipality comprised of eighteen (18), while the former Mbombela Local Municipality had seventy-eight (78) councillors. After amalgamation, Mbombela Local Municipality now comprises ninety (90) councillors. The merger of Mbombela and Umjindi Local Municipalities was guided and implemented in terms of Sections twenty-four (24) and twenty-five (25) of the Municipal Demarcation Act (Act No. 27 of 1998) and Section two (2) of the Municipal Structures Act (Act No. 117 of 1998).

Mbombela (formerly Nelspruit) is a classic example of an expanding contemporary city in an extended tourism geographical region. It has growing peri-urban settlements that have been incorporated into the city boundaries after the local elections in 2000 (Marais and Cloete 2017). Invariably, Mbombela displays spatialised and institutionalised apartheid legacies. The dual structure projects the persistence of previously *white* developed urban spatial core and enclosure, with better services and multiple opportunities for livelihood enhancement. The outer poverty enclave is comprised of fragments and peels of peri-urban settlements that historically experience service delivery backlogs, deficits and constraints (Chakwizira 2019). These problems are superimposed onto an urban land tenure system that frowns at informal and customary land administration, tenure systems and rights present in traditional areas within the Mbombela municipal area.

Generally, studies of secondary cities focus on their economic role in managing urbanisation (Marais and Cloete 2017; Marais et al. 2016) including challenges of mining decline or boom (Marais et al. 2021), policy directions for spatial transformation (Moffat et al. 2021), role of data and technology (Ranchod 2020), urbanity, power and moments of political aspiration (Ammann et al. 2022) in the spatial (r) evolution of the areas. However, the current study's departure point is locating Nelspruit as a historical spatial jigsaw piece within a corridor-based secondary city making use of a spatial governance geographical perspective. Understanding and exploring the notion and concept of a spatial jigsaw for this study is important. Granted the lack of prior scientific work that defines a spatial jigsaw, the author saw merit in developing a framing definition, notion and concept. The Cambridge dictionary defines a jigsaw '*as a complicated or mysterious problem that can only be solved or explained by connecting several pieces of information*' (Cambridge Dictionary 2013).

In this chapter, therefore the notion and concept of a *spatial jigsaw* refers to the existence of a multi-layered, multi-scaled and spatially complicated governance system that requires systems analysis in seeking to understand the linkages and relations between space, place, time, history and culture in respect of the spatial evolution, growth and development of the City of Mbombela in South Africa. The main argument advanced is that in the absence of a spatial jigsaw analytic approach, understanding the drivers of change, change agents and spatial transformation struggles in Mbombela will be incomplete. Consequently, the study furthermore discusses intersections and nested layers of secondary cities' intertwined spatial planning, change and transformation matters (Marais and Nel 2019) and places emphasis on the city's growing and expanding influence on a booming tourism base. This chapter expands on the work by Campbell (2019) by incorporating other spatial governance and development moments that have happened in Mbombela (Nelspruit) with a view to interpret the emerging spatial signatures. The spatial structure and form of the area informs the spatial development scenarios that are highlighted within the context of complex drivers for change and continuity in the municipal area.

This chapter therefore seeks to achieve the following:

1. Locate the Nelspruit case within the confines of a spatial divide and corridor development debates in local government.
2. Explore post-apartheid urban growth and drivers of change levers in the study area.
3. Assess the potential of applying transit-oriented development theory in understanding and addressing spatial and travel distance constraints in Nelspruit (i.e. fostering the spatial integration of the ex-white and peri-urban areas into 'one city').
4. Discuss possible ways of solving the inherited spatial growth and urban development inefficiencies in the study area.

The chapter is structured into *six* sections. *Section one* has presented the introduction, background, case study, study methodology and purpose of the manuscript. *Section two* reviews the historical perspective and context of Mbombela as a secondary city. *Section three* contains an analysis on building a capable municipal local governance system in the City of Mbombela. *Section four* discusses the municipal governance, planning and management of the secondary city. *Section five* comprises a discussion and synthesis to the manuscript, while *section six* presents the chapter's conclusion.

3.2 Contextualisation of the Case Study

Apartheid in South Africa crafted legacy moments in spatial division, social segregation and economic enclaves that located low-income earners in marginal areas dislocated from economic hubs and nodes of advancement (Maharaj and Narsiah 2002). Consequently, carry-over spatial planning and geographical disconnections and discontinuities keep challenging the new democratic government's intent to overcome spatial fragmentation, manage unplanned urban sprawl and address multiple layers of produced informalities in the spatial landscape. Investment in marginal communities, townships, peri-urban and rural areas has continued to be inadequate and of limited impact. The quest to achieve spatial economic justice and redistribute flows, materials and goods for improved inclusive access and livelihoods in both urban and rural areas (Schoeman 2018) has thus been frustrated.

The distance, time and cost paradox for urban commuting is a universal problem that is not peculiar to South Africa (Hirte and Illmann 2019; Randall et al. 2023; Stutzer and Frey 2008; Tao et al. 2023). Ways to increase mobility and access and enhance affordability by governments include a repertoire of measures that include use of public transport subsidies, spatial planning and design towards compact and dense and transit-oriented urban systems as well as tactical urbanism (including urban acupuncture). These are aimed at creating the right densities to support urban public transport at specific points, nodes and corridors. They are also meant to balance the economic, social and environmental objectives of sustainable human settlements and development. In this light, the apartheid government adopted a classical method with the momentary twist of segregation philosophy. Spatial direction of investments and developments was done in a skewed and spatially inefficient and unjust manner for most South Africans. Thus, public transport subsidies in South Africa were targeted at bus and rail operators in order to ensure easy access, movement and circulation of low-income earners from places of residence that were located far away from areas of work and opportunities (Henseler and Maisonnave 2018; Khosa 2017; Khosa 1998). This spatial history provides an appropriate context for exploring Nelspruit as a spatial jigsaw corridor-based secondary city making use of the spatial governance lenses of analysis.

3.3 Methodology

The chapter makes use of a case study of Nelspruit city. A case study approach modelled according to Yin (2009) allows for a detailed analysis and exposition of a case study area (Aberdeen 2013; Piekkari and Welch 2018; Yin 2009). The unit of analysis is the Mbombela city spatial landscape. Another advantage of the case study method is that it enables a researcher to answer the question on how or why spatial governance architecture and forms have transformed or not during the period under investigation. Desktop and secondary datasets from Mbombela municipal integrated development plans (IDPs), local economic development (LED) plans and the spatial development frameworks (SDFs) as relevant and available from 2000 to 2022 were reviewed to facilitate contextual interpretation and relevance of findings. In addition, the following documents and datasets were accessed and analysed: Service Delivery and Budget Implementation Plan (SDBIP) quarterly reports, Stats SA Community Survey 2016 and Stats SA 2000 and 2011 census reports. Key spatial and growth thematic focus areas that were selected for detailed investigation and analysis included population structure and dynamics and settlement form and structure and growth and development trends. Selected key informants were held with officials from the following municipal departments. The data sources accessed and analysed included documentation, archival records, key informant interviews, direct observation, participant observation and physical artefacts. A thematic approach is employed in exploring the key factors of spatial change, growth, governance, continuity and discontinuities in the study area. The outcome of the synthesis constitutes this chapter.

The chapter adopts a two-pronged theoretical framework that is fed by two main anchoring theories, namely, spatial governance and complexity theory. Spatial governance is wider than government and includes the private sector, non-governmental organisations (NGOs), community-based organisations (CBOs) and various layers of formal and formal institutions interested and working in any spatial setting (Chakwizira and Mashiri 2009). In this chapter, spatial governance theory is conceived as a *whole of government approach plus* in seeking to engage, convert and reduce urban spatial and development problems into sustainable and inclusive solutions that address the needs of all urban citizens, i.e. children, youths, women, aged, persons with disabilities and minority/marginalised and peripheral groups (Pierre 2014). This includes juxta positioning of new and old imaginaries of spatial governance and re-imaging with a view to implanting spatial transformation moments and images for change. Dimensions of spatial governance included in this chapter are public transport spatial governance, human settlement spatial governance and institutional spatial governance.

On the other hand, the adoption and use of the complexity theory relevant to the study was predicated on the premise that spatial planning and urban planning by extension are happening in the context of an increasingly globalising, rapidly urbanising and changing, complex, uncertain, networked urban and rural interdependent

world cities' system of systems (Chettiparamb 2019). According to Luhmann (2006), extension of system theory and application in respect of infusing closed systems, open systems and attaching *observing or self-referential systems* is also a critical component incorporated in the analytical approach for completeness.

3.4 Case Study Area Description

The City of Mbombela is in the Ehlanzeni District Municipality, Mpumalanga province, South Africa (refer to Fig. 3.1). It was established in terms of Section 12 of the Municipal Systems Act (2000) by the Member of the Executive Council (MEC) for Cooperative Governance and Traditional Affairs in Mpumalanga after the disestablishment of two municipalities, Mbombela Local Municipality (MP322) and Umjindi Local Municipality (323), in 2016. Mbombela city is situated in the north-eastern part of South Africa within the Lowveld sub-region of the Mpumalanga province. The metropolitan areas of Pretoria and Johannesburg are located 320 km inland, with the border post at Komatipoort approximately 120 km to the east and the Mozambican coastline being around 200 km away and 55 km from the Kruger National Park.

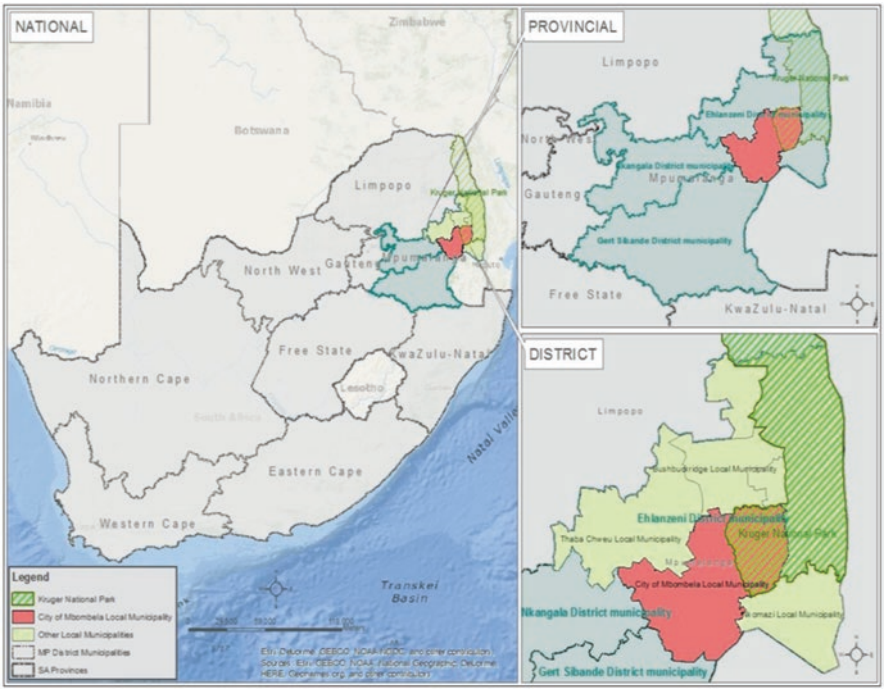

Fig. 3.1 Location map of City of Mbombela, Mpumalanga Province, South Africa. (Source: City of Mbombela 2021)

Consequently, the City of Mbombela is a major stopover point for tourists travelling to the Kruger National Park and to Mozambique. The municipality is also bordered by Swaziland, situated 167 km from the central business district (CBD), and 127 km from Barberton. Urban areas within the municipality include Mbombela, White River, Hazyview and Barberton as well as former homeland towns such as Kabokweni, Kanyamazane and Matsulu. From an aviation perspective, the city has two airports, Kruger Mpumalanga International Airport to the northeast and the general aviation Mbombela Airport to the south-west. Kruger Mpumalanga services flights to Johannesburg and Cape Town and other regional cities and destinations in the Southern African region.

3.5 Historical Perspective and Context of the Secondary City

This section highlights the main issues that have played a role in the development of the town. This is in terms of the relationships and outcomes vis-à-vis demographic and population in respect of the spatial land uses and changes in the City of Mbombela. Discussions with respect to how the city has responded to the changing world of planning are also highlighted.

3.5.1 Land Use, Spatial Form, Structure and Geography of the City of Mbombela

The land use patterns of urban and rural areas are mostly influenced by a diverse set of factors, which include climate, topography and resource base in the area such as minerals, soils, etc. The broader land use patterns that occur within the City of Mbombela are categorised into natural elements, primary economic activities and human settlements as indicated in Table 3.1.

From Table 3.1, natural elements dominate the total land cover within the Mbombela municipal area with 543,680 ha. It is followed by the primary economic activities that take place within the municipal space. Human settlements constitute 23,591 ha. On the other hand, the current spatial structure of the City of Mbombela is dictated by various spatial structuring elements and settlement status (hierarchy) with associated economic base. The spatial structure that currently defines the City of Mbombela can be summarised in terms of the following dominating elements:

Table 3.1 Land use patterns

Category	Total land cover (ha) – 2014
Natural elements	543,680
Primary economic activities	146,732
Human settlements	23,591

Source: City of Mbombela Spatial Development Framework (2019)

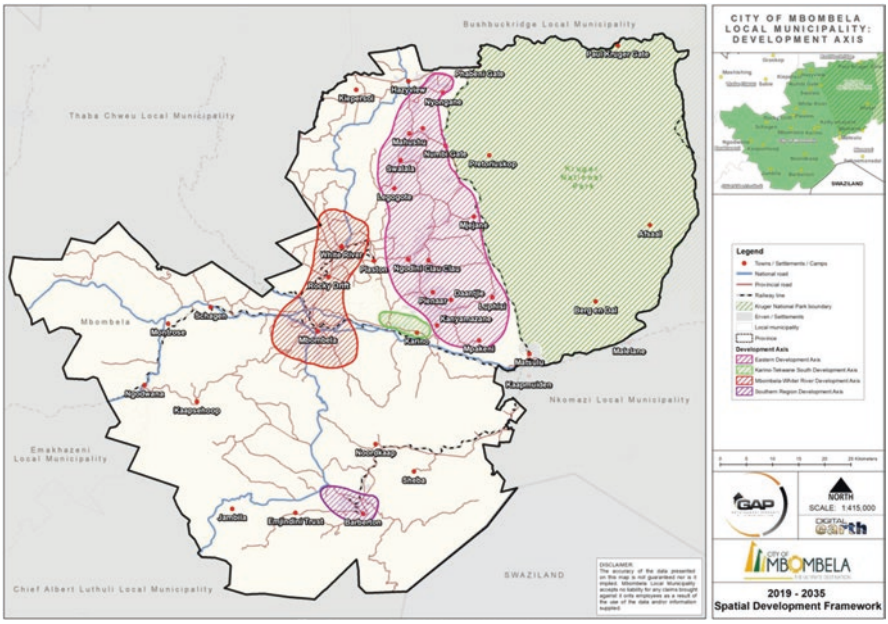

Fig. 3.2 City of Mbombela Four-Development Axis. (Source: City of Mbombela Spatial Development Framework, 2019)

- Central business districts (primary municipal nodes).
- Secondary nodes.
- Mining settlements.
- Rural settlements and rural service centres.

In brief, the spatial manifestation of the municipality expresses itself along four axes of development patterns (refer to Fig. 3.2). These four axes strategically spread across all regions of the municipality. These are discussed briefly hereunder as follows:

- *The Eastern Development Axis*: This consists of a broad belt of urban and semi-urban settlements, stretching from Hazyview in the northern region to Kanyamazane in the eastern region. This development axis is characterised by several settlements that exist within the eastern and northern regions of the municipality. These spatially inefficient settlements are characterised by a lack of economic and social opportunities, long distances between residence and work or shopping places and insecure forms of land tenure. In addition, the settlements are rapidly growing towards each other in a formal or informal and uncoordinated manner with the result being the formation of a continuous urban agglomeration with little remaining open space.
- *Mbombela–White River Development Axis*: The Nelspruit–White River Development corridor comprises of Road P9–2 (R40), which includes Nelspruit CBD, the Nelspruit industrial-cum-commercial areas, Riverside

Park industrial area, Riverside Mall, the Provincial Government office complex, Rocky Drift and White River. The residential areas of Nelspruit and White River are also included. Settlements in the western part have opposite characteristics to the settlements in the east. Rigid town planning schemes, assured zonings that provide for definite land uses within certain zones, thereby controlling development in these areas. Due to the uniformity provided by these zonings, a set standard of development is achieved in terms of scale and quality.

- *Karino–Tekwane South Development Axis*: The Karino–Tekwane South Development Axis occurs along the Kanyamazane Road (D2296) and forms an anchor point for the growing urban expansion area of the City of Mbombela. This development axis was the result of a trickledown effect associated with the development of the Karino Lifestyle Estate and the unavailability of strategic land for residential development around the Nelspruit area. The Karino–Tekwane Development Axis is characterised by ongoing residential, commercial, institutional and other urban development, as well as the proposed Mega Urban Hub.
- *Southern Region Development Axis*: The Southern Region Development Axis is characterised by the Barberton/Emjindini as a major urban development node within the area consisting of various business centre and residential areas with a disparate settlement pattern. Development within this region has been very limited; however, pockets of urban and semi-urban development including continuous residential development have occurred over the years in the areas around Phumula and Emjindini Ext 12 towards Selapi along the R40 and R38 corridors.

In addition, open spaces in the City of Mbombela Open Space are predicated on geophysical features, natural resources and cultural landscapes which also accommodates the associated cores and buffers. The following types of open spaces found in the City of Mbombela include biodiversity areas; river corridors; ridges and mountainous areas; natural heritage sites; public parks; and nature reserves. However, to population growth and pressures, some of the above-mentioned types of open spaces are being compromised due to uncontrolled developments and informal settlements.

From Fig. 3.2, the following realities emerge:

- Nelspruit is the most important settlement within the hierarchy of settlements as it provides most central functions and has the greatest sphere of influence. Nelspruit has a high dependence on surrounding areas for resource inputs.
- White River, Hazyview and Barberton perform a secondary role to Nelspruit as employment centre and residential area and fulfil a sub-regional role with respect to the provision of central functions. These nodes depend on Nelspruit for specialised goods and services.
- The main economic activity in the eastern areas is taking place at Kanyamazane CBD, Kabokweni and Matsulu. Commercial activities in Swalala, Msogwaba and Daantjie are located along the main routes. These areas are characterised by

low levels of formal local economic activity and high dependence on higher-order settlements for specialised goods and services.
- Several rural villages in the eastern part are supported by subsistence crop production and livestock farming with no other economic base. These rural communities depend on nearby service centres where they can access day-to-day services.

3.5.2 Population Growth and Demographics in the City of Mbombela

There are approximately 712,578 people at Mbombela. Table 3.2 indicates that over a 5-year period between 2015 and 2020, City of Mbombela's (CoM's) population rate increased by 1,55%.

According to the Community Survey 2016 conducted by Stats SA, the population of the City of Mbombela was estimated to be 695,913. This population constitutes 39.6% of the entire population of Ehlanzeni District. The City of Mbombela has recorded an annual population growth rate of 2.3% per annum between 2001 and 2011 (StatsSA 2011). However, between 2011 and 2016, an annual population growth rate of 1.2% was observed. The projected population of the city for the year 2030 is estimated to be 956,877 as indicated in Table 3.3.

In respect to population distribution, the larger portion of Mbombela's population live in peri-urban and rural areas. About 75% of the people live within communal areas on the eastern axis of the City which is far from the economic centres. CoM has the highest population density compared to Mpumalanga and Ehlanzeni Districts. Table 3.4 indicates that over the 5-year period, CoM's density increased from 77 to 81 people per square kilometre in 2020.

The increase in the density could be attributed to a process of natural urbanisation and possibly people migrating into the city. At a policy level, there is a probability that CoM's spatial development objectives of densification, compact development and infill paying off. Figure 3.3 presents the City of Mbombela population density map.

Table 3.2 Population growth, 2015–2020

Entity	2015	2016	2017	2018	2019	2020	Growth rate
Mpumalanga	4,333,048	4,395,729	4,463,614	4,535,772	4,609,223	4,679,786	1,55%
Ehlanzeni	1,749,217	1,763,030	1,779,974	1,797,469	1,814,211	1,828,739	0,89%
City of Mbombela (CoM)	681,755	687,619	695,665	703,102	709,423	712,578	0,89%

Source: Quantec Easydata (2021)

Table 3.3 Total population

Year	2011	2016	2030	Growth rate
Total population	655,950	695,913	965,877	2.4%

Source: Statistics South Africa (2011, 2016)

Table 3.4 Population densities, 2015–2020

Year	Mpumalanga	Ehlanzeni DM	CoM
2015	57	63	77
2016	57	63	78
2017	58	64	79
2018	59	64	80
2019	60	65	80
2020	61	66	81

Source: Quantec Easydata (2021)

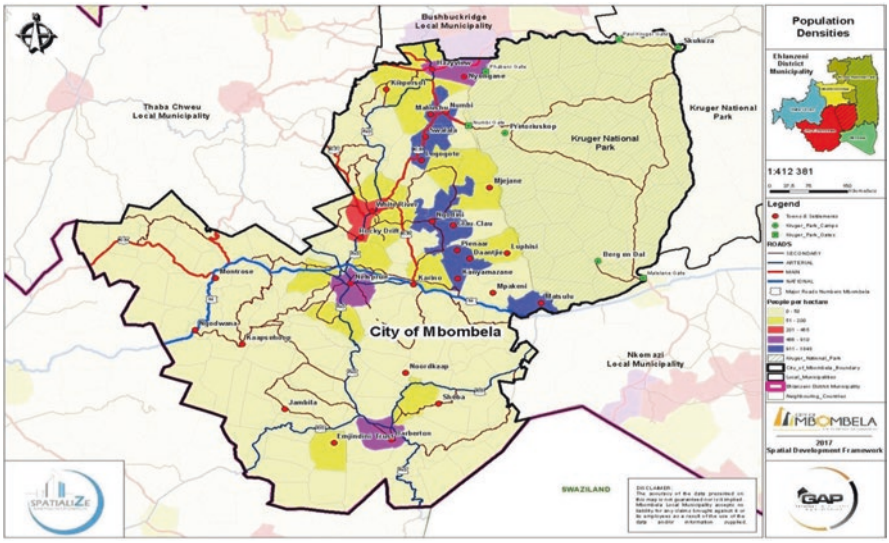

Fig. 3.3 City of Mbombela population density map. (Source: City of Mbombela Spatial Development Framework 2019)

3.5.3 Population Growth and Dynamics in the City of Mbombela

The City of Mbombela has grown considerably due to its status as a capital city and provincial administration of Mpumalanga. With the recent amalgamation of the former Umjindi and former Mbombela Local Municipalities, the city is expected to grow rapidly and heading towards a Metropolitan Status. The growth of the city resulted in

demand for urban land around the main economic centres, i.e. White River, Nelspruit, Hazyview and Barberton. Development pressure within the municipality is evident in the four axes of development in the area. Firstly, in the Mbombela–White River Development Axis, it is in terms of business and commercial development along the R40. In addition, the provision of affordable housing nearer to places of employment is widespread in the axis. Complementary to this, the provision of roads and engineering infrastructure to support these developments is also a common typical spatial and non-spatial development that manifests in the axis.

Secondly, development pressure is exerted on the *Eastern Development Axis*. This can be explained in terms of the following factors: the unmanaged influx of people into the area; unstructured settlement patterns; the lack of employment within proximity of residential areas; urban and rural decay; disparate provision of social, economic and engineering infrastructure; and a poorly developed road and transportation system. Thirdly, development pressure is exerted along the *Karino–Tekwane South Development Axis*. *This spatial pressure is a result of the* urban expansion in the area under the jurisdiction of the City of Mbombela as well as the outcome of the ongoing residential, commercial, institutional and other urban developments.

Fourthly and lastly, development pressure is exerted in the *Southern Region Development Axis*. The Southern Region Development Axis is characterised by the Barberton/Emjindini as a major urban development node within the area consisting of various business centres and residential areas. Recently submitted and approved land development applications (from year 2012 to 2023) give an indication of the development pressures in the municipality. Many applications for rezoning are clustered in and around economic centres such as Barberton, Nelspruit, Rocky Drift, White River and Hazyview and other expansion areas such as Nelspruit extension, Riverside Park extension 24, Sonheuwel Township and West Acres extension 17. This can be ascribed to the proximity of existing social and engineering infrastructure, economies of scale, employment opportunities, good access and visual exposure. An investigation of land development applications for township establishment, mainly submitted to the City of Mbombela Local Municipality, indicates that most of these applications are clustered around White River farm portions, Karino area, Tekwane area, Boschrand Heights and South of the Nelspruit CBD, and development in the eastern areas is mainly funded by the public sector focusing on the delivery of houses and associated social and engineering infrastructure. It is imperative that tenure issues be resolved and settlements be formalised and registered to attract private sector investment.

The future development trends of the municipality emanate from the future township developments as indicated as well as the proposed future roads according to the roads' master plan of the municipality. The City of Mbombela has identified the following new development areas which will play a vital role for future development of the municipality: Tekwane Mega Urban Hub, Nkosi City, Mataffin Stadium Precinct, Northern Areas Development, Plaston Park Precinct, Kruger Mpumalanga International Airport (KMIA) Hub, Rocky Drift–Dingwell, Mpumagreen and Kgarudi.

3.6 Land Use Activities, Spatial Planning and Expressions in City of Mbombela

Generally, land use patterns of urban and rural areas are mostly influenced by a diverse set of factors, which includes climate, topography and resource base in the area such as minerals, soils, etc. The broader land use patterns that occur within the City of Mbombela are categorised into natural elements, primary economic activities and human settlements. However, given population growth, the demand for industrial, commercial and social facilities in the main development axis of the municipality has been rising. The following section reviews these briefly.

3.6.1 Industrial and Office Space Demand in the City of Mbombela

Increasing industrialisation, brought about by increased population growth and development, leads to more and more land being required for this use. The Rocky Drift industrial and commercial node has experienced significant growth over the past few years as it is ideally situated to provide for the overspill activities from Nelspruit, as well as White River. Riverside Park industrial and commercial node has experienced significant growth over the past few years accommodating commercial, warehouses, retail, offices, motor-related land uses and industrial developments. However, some of the southern regions (former Umjindi) has experienced a significant decline over the past few years in terms of industrial development. Table 3.5 indicates the anticipated industrial space demand for 2020 and 2030, given a scenario of higher future growth due to improved economic conditions in the market area.

3.6.2 Trading Space Demand

Informal trade is an important economic sector, especially in the eastern parts, as it provides employment and livelihoods to a significant percentage of the people living in these areas. The informal sector will remain an important sector in Mbombela,

Table 3.5 Industrial and office space demand

Cumulative additional demand	2020	2030
Finance and insurance (m^2 GLA)	103,230	182,842
Business services (m^2 GLA)	615,659	909,718
Total Mbombela	718,889 (±72 ha)	1,092,560 (±110 ha)

Source: Mbombela Corridor Modelling Market Study (2010a)
Note: Land required for industrial and office space if a floor area ratio (FAR) of 0.7 is applied is 102 ha in 2020 and 157 ha in 2030

Table 3.6 Trade space demand

Cumulative additional demand	2020	2030
Wholesale and retail trade (m^2 GLA)	429,276	672,853
Catering and accommodation (m^2 GLA)	402,977	622,910
Total Mbombela	832,253 (±83 ha)	1,295,763 (±130 ha)

Source: Mbombela Corridor Modelling Market Study (2010b)
Note: Land required for trade space if a floor area ratio (FAR) of 0.7 is applied is 118 ha in 2020 and 186 ha in 2030

but an increasing number of people are supporting the formal retail sector, evident in the retail developments in Kabokweni, Kanyamazane as well as the facilities planned at Msogwaba and the upgrade of retail facilities in Matsulu. Table 3.6 indicates the anticipated trade space demand for 2020 and 2030, given a scenario of higher future growth due to improved economic conditions in the market area.

3.6.3 Waste Management Infrastructure History in Mbombela

The evolving waste management experience in Mbombela is typical of any secondary city in South Africa post-apartheid. Criticism in respect of inadequate or lack of infrastructure is an ongoing challenge. The problem is multi-faceted. One reason advanced is that there is insufficient equipment and a system for the collection of waste in the city. The machinery available, besides being not enough, is also plagued by frequent breakdowns. These breakdowns are linked to insufficient maintenance and/or the result of prolonged periods that these vehicles spend while awaiting to be serviced; meanwhile service delivery will be suffering. Table 3.7 presents the four operational solid waste landfill site statuses in the City of Mbombela.

Indeed, a value chain analysis of the collection, cleansing and transportation of waste in the study area reveals cracks and gaps in the system. These can be classified into the following main types:

- *Incomplete service area coverage*: Refuse collection is skewed to urban and semi-urban centres. There is limited to no collection in the rural areas and marginal areas. Consequently, approximately 27% of households in the former Mbombela Local Municipal area and 65.3% of households in the former Umjindi Local Municipal area receive refuse removal services.
- *Intra- and inter-uneven urban servicing*: Collection in the urban is skewed in favour of suburbs and intermittent for a select few of parts of the townships. In addition, public refuse drop facilities are very limited or inadequate and usually mostly concentrated in the affluent areas.
- *Service exclusion of informal settlements*: Little to no collection of waste in informal settlements and rural areas is a common phenomenon given that most probably these areas do not contribute or contribute little directly to the municipal fiscus system.

Table 3.7 Landfill sites

Landfill site	Permit	Estimated life span	Proposal/recommendation
Tekwane west central disposal site	Yes	25 years	Improve operations and maintain infrastructure at the various landfills (Hazyview – while operational, Tekwane Central and Barberton)
Hazyview landfill	No	3 years	Improve operations and maintain infrastructure at the various landfills (Hazyview – while operational, Tekwane Central and Barberton) Establish transfer stations at Hazyview landfill (once closed and rehabilitated)
Mbombela landfill	Yes	–	Improve operations and maintain infrastructure at the various operational landfills to comply with permit/ license conditions
Barberton landfill	–	–	Upgrade the existing Barberton landfill site and a new disposal area established adjacent to the existing site to cater for future disposal requirements Investigate the feasibility to close the Barberton landfill site in the medium to long term and establish a transfer station on the closed site

In seeking to address these challenges, the municipality can explore, developing and implementing a municipal wide comprehensive waste collection strategy and action plan that is inclusive of all areas and new developments; enhance street clean-up campaigns in high-density townships as well as informal areas and rural areas; establish and extend waste transfer stations; as well as purchase appropriate waste collection vehicles. Opportunities for establishing biogas digesters from portable to large plants for energy production can also be explored as demonstrated feasible in other areas of South Africa and beyond (Ajay et al. 2021; Mavridis and Voudrias 2021).

3.6.4 Electricity Service Providers and the Power (Energy) Governance System

The electrical service and power (energy) governance system within the municipal area is operated and maintained by City of Mbombela and Eskom. The Energy Department of City of Mbombela (CoM) delivers electrical engineering services to most of the urban areas within the four regions of the Mbombela municipal area. However, in Hazyview, Eskom supplies electricity directly to most of the bulk users. Generally, in the Eskom areas, CoM installs and maintains the street and high-mast lights. The financial drawback of the current arrangement is that street and area lights are not metered, and thus this service is rendered without any financial compensation. However, the long-term goal is for the city to increase electricity supply base and reduce number of Eskom intake points. The thrust in reducing number of

intake points will enable CoM to purchase electricity at a lower cost, thereby resulting in greater savings. On the other hand, in the predominantly rural areas of the city, Eskom supplies electricity directly to such areas. While this relieves the city of such a responsibility, the drawback is that Eskom does not supply any street or high-mast lights resulting in complaints about lack of street lighting to the municipality from such areas.

Overall, the electrical infrastructure services in the city are distributed via the following electrical grid system: intake points (bulk supply points) from Eskom (132/11 kV, 132/22 kV, 132/33 kV substations); distribution substations (132/11 kV, 22/11 kV); overhead distribution lines (132 kV, 22 kV and 11 kV lines); switching stations (22 kV, 11 kV); electrical reticulation (22 kV, 11 kV, 420 V); and street and high-mast lighting. An electricity demand forecast conducted in 2020 that took into consideration the new housing developments and backlog projects predicted that the electricity demand from the city will grow from a base load of 125 MW to 346 MW in 2030. The average growth rate per annum over the period until 2030 is 7.5% (refer to Fig. 3.4).

Given the load-shedding[1]challenges that the South Africa Eskom has started experiencing of late, alternative forms of energy such as renewables and various off-grid measures can be explored to augment electricity supply and as part of the city's contribution towards a low-carbon economy.

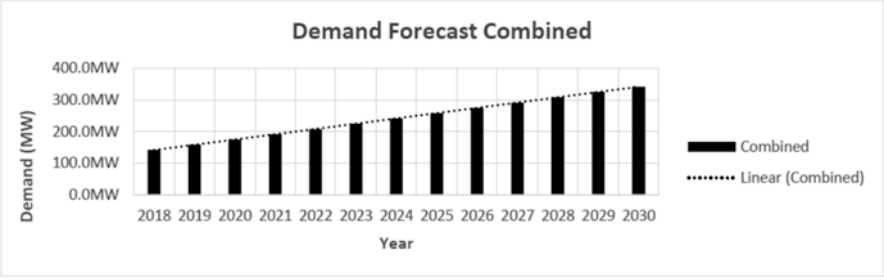

Fig. 3.4 Electricity demand forecast

[1] South Africa's energy crisis or load-shedding refers to ongoing period(s) of widespread national blackouts of electricity supply which began in late 2007, and still persists to date. One of its main causes singled out to explain load-shedding in the country's is the heavy energy reliance on coal-fired power plants. Unfortunately, these plants are plagued by the twin problems of ageing infrastructure that require regular maintenance, resulting in breakdowns and unplanned outages. The result of these disruptions is reduced amount of electricity supply that is available to the national grid. Secondly, the country's coal supply has been unreliable due to operational issues and disruptions caused by labour strikes. Attempts at addressing this problem involve South Africa working to shift energy mix from coal to renewable energy sources such as wind and solar power.

3.6.5 *Built Environment, Engineering Services and Topographical Interactions in the Growth and Development Landscape of the City of Mbombela*

The city's topography is uneven. Mountainous areas are found mainly in the western and southern parts of the city. On the other hand, gently sloping areas dominate the eastern parts and segments of the south. The gradient in the municipal area falls sharply from a height of approximately 1200 m above sea level in the southern-western part to 350 m in the north-eastern parts. Consequently, most parts of the municipal area are characterised by steep slopes. In instances in which the slopes are greater than twenty percent (20%), such slopes are considered too steep for conventional housing and urban development. Generally, the provision of off-site bulk and on-site engineering services increases the steeper the slopes are (Douglas 2020; Hazelton and Murphy 2021).

3.6.6 *Impact of Geology and Topography in the Growth and Development Landscape of Mbombela*

The granites which cover most of the central, northern and eastern parts of the municipality prohibit large exploitation of groundwater due to the physical hydraulic nature of granite aquifers. While these granitic rocks offer a good bedrock for foundations, their downside is that when weathered into soil, the newly formed soil layer can easily collapse under pressure or weight. On the other hand, the southern region (former Umjindi) is mostly covered with the gabbro group, coupled with the shale, quartzite, sandstone, greywacke and mafic groups. These geologic rock-type groups are highly permeable and erodible, comprising of colluvial sands and residual soils that are overlaid on the granitic bedrock (potassic gneiss and migmatite). This is quite common in the Kanyamazane area. At the same time, the western part of the City of Mbombela comprises of a variety of geology groups including shale, dolomite,[2] quartzite, andesite, ultramafic rocks and gneiss. Dolomite rocks give rise to caustic features; the most notable in Mbombela is the 1.8-km-long Sudwala Caves (City of Mbombela 2021). For example, Hazyview is underlain by granodiorite and Matsulu is underlain by gneiss. Overall, these geological formations have spatial risk implications in the growth of the city. Furthermore, the dolomite band stretching from Sudwala southwards is considered a *high risk* if not a *no-go* area for urban development. This is because of either or a combination of the following:

[2] Dolomite is unstable and can cause dolines or sinkholes presenting risks and threats to human settlements, infrastructure and services such as houses, roads and road networks, water and sewer systems and networks, etc.

being an area that is affected by sinkholes or areas where heaving clays are present. As a result, some areas underlain by geology types are generally considered not suitable for urban development in the City of Mbombela. Such areas have usually been excluded from development and included into a conservation zone or an open space system use.

3.6.7 Housing Backlog

A key challenge in the City of Mbombela (CoM) is urban inequality. This problem is not unique to the city but common in urban areas in both developed and developing countries although with differentiated nuances and twists (Chirisa et al. 2020; Silva-Laya et al. 2020; Vilar-Compte et al. 2021). With rapid population and urbanisation in the absence of commensurate industrialisation, poverty, unemployment and inequalities become challenging issues that require solutions (Arfanuzzaman and Dahiya 2019; Kookana et al. 2020). Another consequence of this situation is growing housing backlog in the city. This also manifests itself in informal housing and settlements including the ever-present threats of land invasion and urban sprawl into surrounding farms and areas under traditional authority (Matamanda 2020; Weimann and Oni 2019). The housing backlog is estimated at approximately 32,000 housing units (Mpumalanga Province 2023). Options of providing decent low-cost social housing accommodation based on various public–private partnership models can be explored in partnership with the department of human settlements, alternative cost building agencies and organisations such as Moladi and the Council for Scientific and Industrial Research (CSIR).

In the future, 3-D printing of low-cost housing[3] can help in reducing housing backlogs which is also an area ripe for exploration. At the same time, the call to create self-contained and vibrant neighbourhoods and townships implies the need to expedite work on building and revitalising townships as well as accelerating work on densification, compaction and integration zones as identified in the spatial development frameworks (SDFs) and related documents.

[3] Whether 3-D printing of houses will impact low cost and fast turnaround times in housing delivery in South Africa in the future is debatable. While history and experience point to the fact that most high tech housing systems have failed in South Africa, it is debatable whether there is no place for high-tech housing in South Africa National (Department of Human Settlements 2017). Further research and work will assist in providing a clear roadmap and path in respect to domesticating 3-D printing for low-cost housing in South Africa or not.

3.6.8 *Mbombela Golden Triangle: An Enduring Place Making, Branding Spatial and Urban Design Narrative*

Since 1994 and in the context of the first generation of SDFs as introduced by the Municipal Systems Act in 2001, intense spatial planning and development discourses gave birth to the *Sakha iMbombela* turnaround strategy. The strategy centrepiece was building the spatial *Golden Triangle* as a guide to the spatial development narratives and signatures of the municipality. The Golden Triangle was designed in compliance with the National Spatial Development Perspective (NSDP) (2006) principle of spatially targeting and developing spatial areas according to their inert spatial potential. The N4 road corridor has always been identified as a corridor and region with vast industrial potential. On the other hand, R40 road corridor has always been identified as a corridor and regional functional tourism area given its proximity to the Kruger National Park (KNP). The Mbombela Local Municipality's first spatial development framework (SDF), which was subsequently reviewed with the most recent review being in 2019, gave spatial effect to implementing the spatial logic of the Golden Triangle as a spatial transformation, investment and targeting tool and mechanism in the region.

Figure 3.5 illustrates the Golden Triangle of the then Mbombela Local Municipality (MLM). The spatial logic of the Golden Triangle remains an enduring and overarching spatial structuring, design and tactical urbanism representation of both elements and moments for opportunities of public space (urban, semi-rural and per-urban) regeneration, renewal, township revitalisation, biodiversity conversation and management, transit-oriented and corridor development as well as reminder for the need of alignment and coordination of multiple, nested and overlapping layers of governance and management in the area.

3.6.9 *Analysis on Building a Capable Municipal Local Governance System in Mbombela: The Amalgamation Paradox*

Literature is replete with contradictory examples on how rich and poor local municipalities can be amalgamated for better economic efficiency, improved governance system and service delivery, while cases in which the resultant bigger municipalities have suffered setback and constraints owing to deterioration in service delivery and structural political gimmicking and agendas winding the clocks backwards to the detriment of locking development away from locals to benefits as anticipated instead becoming the undesirable outcome and result (Ananda and Martin-Sardesai 2022; Dollery et al. 2020; Myksvoll 2023; Netswera 2022; Wright and Slukhai 2021). Amalgamation was adopted with a view for enhanced performance in the study area.

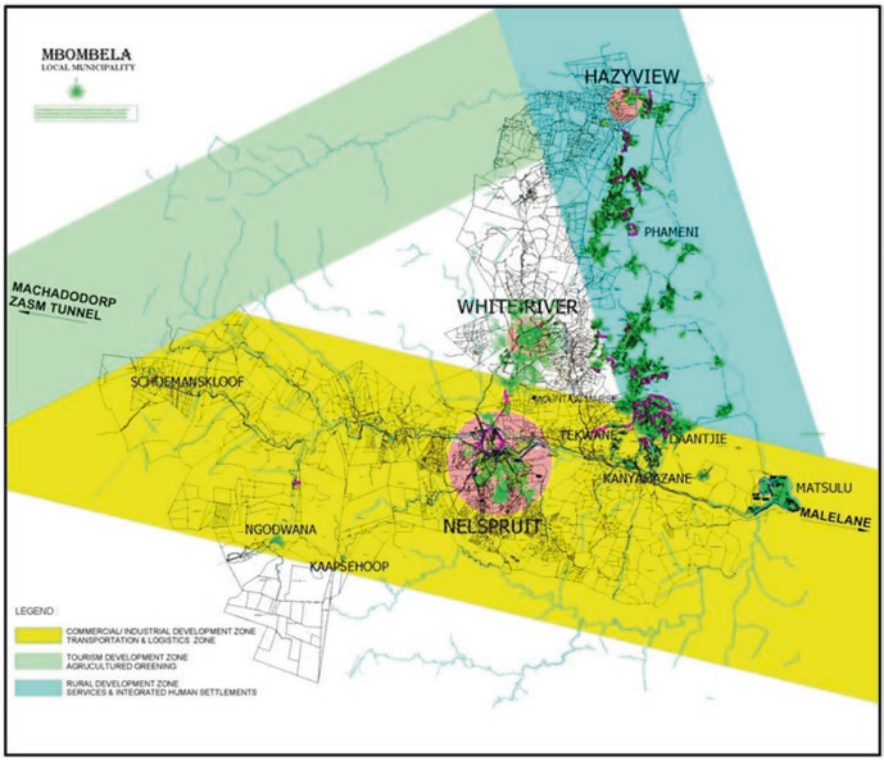

Fig. 3.5 The Golden Triangle. (Source: Mbombela Local Municipality, Mbombela Local Municiaplity 2010)
Figure Interpretation: The yellow notation symbolises the *yellow belt* along the N4, starting from Machadodorp/ZASM tunnel towards Matsulu/Maputo; green notation symbolises the *green belt* for tourism that starts from Machadodorp/ZASM tunnel to Hazyview. The green notation also covers the R40 road to Hazyview. The blue notation symbolises the *blue belt* from Hazyview, Nsikazi and towards Matsulu, where infrastructure, particularly water, need to be provided

The amalgamation of the two municipalities resulted in the City of Mbombela Local Municipality having satellite centres which improved the coordination of service delivery. In addition, the traditional leaders were merged, i.e. prior to the amalgamation. In this respect GIZ supported the municipality in the development of a single organogram aligned to the integrated development plans (IDPs) and Service Delivery and Budget Implementation Plan (SDBIP).

At the same time, the processes on the placement of all staff from the two former municipalities were concluded with the organisational structure being approved on the twenty-ninth (29th) of May (05), twenty nineteen (2019) (City of Mbombela 2021). There are currently 5207 posts, of which 1961 are filled and 3246 are vacant (City of Mbombela 2023). The number of males in posts is 1227, females 734, youth 438 and disabled 10. However, the municipality has a challenge in the implementation

of Employment Equity Plan. From a male transformation perspective, the fact that there are only two senior managers who are female out of the fifteen (15) managers represents an opportunity for transformation and empowerment.

Capacity constraints in key areas together with funding constraints continue to compromise the ability and capacity of the City of Mbombela to deliver adequate services in the municipal area. Consequently, service delivery protests do occur from time to time. As an example, in February 2020, there were community protests in the Umjindi area. The residents listed the following issues as complaints, namely, poor service delivery, lack of economic opportunities and that they wanted their area to be a stand-alone municipality again (i.e. to be re-constituted and re-established as Umjindi Local Municipality again). While the Member of the Executive Council (MEC) engaged the Municipal Demarcation Board (MDB) on the matter, the MDB responded that the matter would be considered after the 2021 local government elections.

To date no public statement on this matter has been made. However, the fact that the MDB is being asked to consider rescinding the previous decision that resulted in the amalgamation and establishment of the City of Mbombela raises question marks on the local government spatial governance resilience and sustainability in changing times and circumstances. This calls into further question as to what requires reform, is it the local governance institutional and administrative set-up from a scale and economies of scale perspective or is it a governance transparency and accountability image from being locally present and close to the grassroots experience or is it about the laws and lack of funding generally.

In addition, the following problems have been cited in the predominantly urban, rural and peri-urban areas of the City of Mbombela: water scarcity in the rural communities; sporadic mushrooming of informal settlements; no spatial developmental growth on the periphery of the inner city; no tangible job creation; unemployment, poverty and inequality that have increased due to COVID-19 pandemic; and the amalgamation process that has not yielded the desired results. Given the intertwined nature of the problems and issues that confront the City of Mbombela, the Department of Cooperative Governance and Traditional Affairs (COGTA) and other relevant stakeholders in Mpumalanga province continue engaging and supporting the municipality within the realms of a *one or single governance* local developmental model in light of sustainable development goals (SDGs), New Urban Agenda (2015), climate change and human development indicators (Ciasullo et al. 2020; De Guimarães et al. 2020; Meyer and Auriacombe 2019). This has strong resonance with the district development model as recently introduced and being implemented or contemplated by the Department of Cooperative Governance and Traditional Affairs throughout the country (Khambule 2021).

One strategy that has been adopted has been the development of a turnaround plan to address all the issues highlighted under the sustainability assessment report (City of Mbombela 2021). The implementation of the turnaround strategy has however not stopped the communities who have continued to protest over poor service delivery. In respect of the functionality of formal structures and systems to facilitate engagement platforms, the post-amalgamation has helped in bringing an

Table 3.8 Participation architecture in the City of Mbombela pre- and post-amalgamation

Municipality	Activities	Status pre-amalgamation 2015/2016	Status post-amalgamation 2017/2018
Umjindi Local Municipality	Ward committees	All nine wards were functional	There is an improvement in the functionality of wards, 35 out of 45 wards were functional
Mbombela Local Municipality	Ward committees	18 out of 39 wards were functional	

improvement, but the systems are still criticised as not having matured enough. However, the fact that at least ten (10) formal wards still have formal recorded participation systems gaps and cracks reveals the lack of inclusive and comprehensive participation systems and structures in the study area (refer to Table 3.8).

With the new system as introduced in 2016, the financial system has remained relatively the same with the proviso of an amalgamated accounting system. The Municipal Demarcation Transitional Grant (MDTG) that was provided to the municipality to facilitate the integration of systems has been cited as one of the reasons that explains the status quo. Consequently, the audit outcome has remained unchanged since 2015/2016–2017/2018 financial years. However, the municipality is still plagued by the challenge of inaccurate billing system together with low consumer payment rates by township and rural communities. At the same time, Umjindi and Mbombela Local Municipalities had separate Tribunals before the amalgamation and have since established a single Municipal Planning Tribunal as required by the spatial planning, land use and management act (SPLUMA) (2013). In any case, projects that were started prior to the amalgamation have since been completed and are operational owing to a combined increase in budgeting, wider income and revenue base, increased capacity and enhanced governance system, e.g. the classic example of SDFs in the study area as reflected in Table 3.9.

3.7 Municipal Governance, Planning and Management of the Secondary City

The City of Mbombela has implemented the Integrated Public Transport Network (IPTN) as one measure of fighting the spatial axis development corridor systems inefficiencies through developing the axis into a public transport-orientated system. Figure 3.6 presents the major corridor and multiple feeders' principle that underpin the Integrated Public Transport Network (IPTN) as well as being a depiction of the network illustration concept.

As illustrated in Fig. 3.6, the MIPTN is an example of an integrative transport fighting mechanism that is conceptually based on the following values, norms and principles:

- Ensuring the development of effective land use and transport systems that integrate existing bus and mini-bus taxi (MBT) systems on an equitable basis.

Table 3.9 Spatial rationale history in the City of Mbombela

Municipality	Activities	Status pre-amalgamation 2015/2016	Status post-amalgamation 2017/2018
Umjindi Local Municipality	SDF	SDF was approved and implemented	SDF was approved and implemented Municipality is in the process to prepare SPLUMA–land use scheme
	SPLUMA	The municipality failed to adopt delegation on SPLUMA functions	
Mbombela Local Municipality	SDF	SDF was approved and implemented	
	SPLUMA	The municipality was ready to implement SPLUMA	

- Responding timeously to the contextual requirements of public transport commuting demand in the City of Mbombela.
- Providing greater choice for public transport commuters that is linked to quality of service.
- Deployment of a system of public transport operations that is based on a structured and organised public transport system schedule covering the full day including peak and off-peak times and public holidays.
- Extending the public transport feeder services deeper into marginal and underserviced communities residing in semi-rural or urban fringes of the City of Mbombela.
- Supporting measures in place aimed at reducing public commuters' walking distances and overall travel time.

In complementing the IPTN plan, the City of Mbombela has simultaneously activated the spatial development plan (SDF) as part of a multi-pronged approach aimed at redressing the apartheid legacy. This means that the spatial development framework (SDF) and the Mbombela Integrated Public Transport Network (MIPTN) are mutually complementary and integrative land use and transport interventions. Figure 3.7 presents a schematic illustration of inherited spatial apartheid geography that is being spatially confronted and dismantled through both reform and spatial targeting projects such as the MITNP.

From Fig. 3.7, an appreciation of the City of Mbombela's spatial layout and design plan can be deciphered. As indicated in Fig. 3.7, many of the inhabitants in the City of Mbombela still live outside the White River CBD and Nelspruit CBD core. Consequently, the MITNP operational plan is underpinned by an integrated web of local feeder and long-haul linkages that supports the use of mixed fleet (mini-bus taxis,[4] midibuses[5] and buses). In this way, the Mbombela public transport

[4] A 'mini-bus taxi' in South Africa means a motor vehicle designed or modified solely or principally for conveying more than 9 but not more than 16 seated persons, including the driver (Department of Transport 2009).

[5] A 'midibus' in South Africa means a motor vehicle designed or modified solely or principally for conveying more than 16 but not more than 35 persons, including the driver, and for the purposes of the National Road Traffic Act is a type of sub-category of bus (Department of Transport 2009).

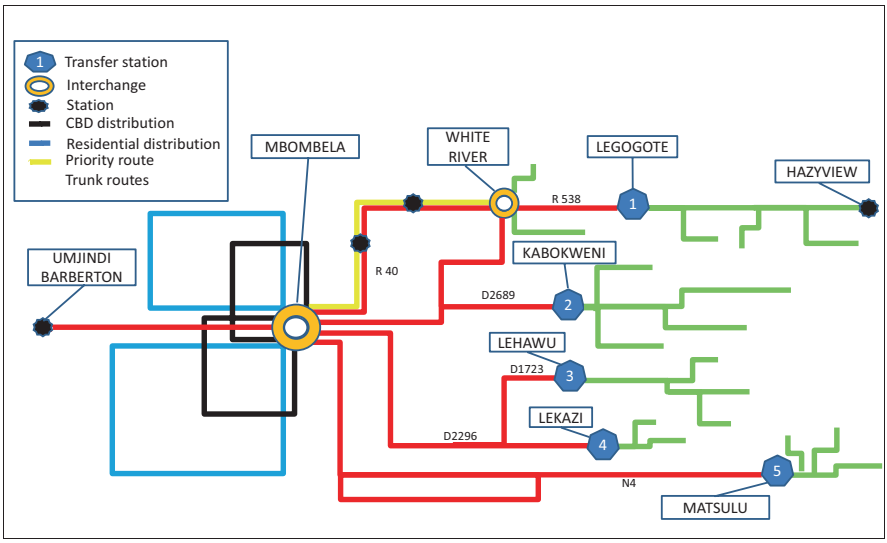

Fig. 3.6 MIPTN land use and transportation network schematic illustration concept. (Source: City of Mbombela 2022)

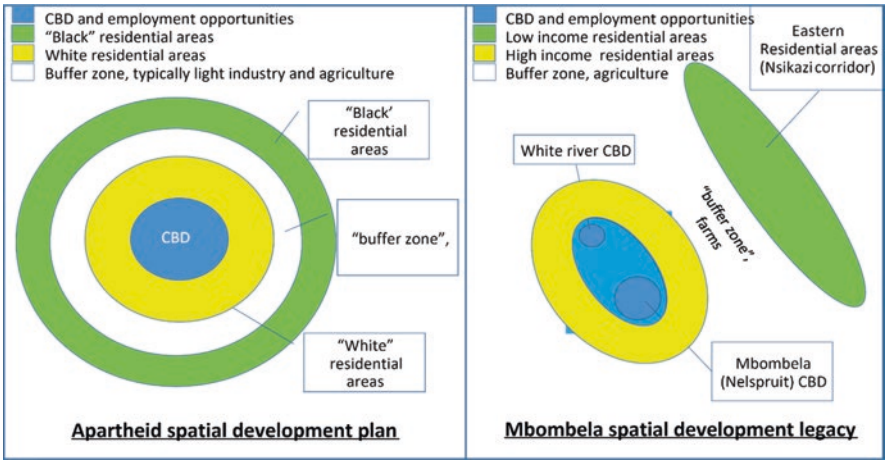

Fig. 3.7 Schematic illustration of City of Mbombela's spatial layout and design plan. (Source: City of Mbombela 2022)

(PT) hub is strategically positioned to allow for multimodal integration including rail station, MBTs and bus services. MIPTN aims at improving city mobility and accessibility through transit-oriented development including non-motorised transport that supports multimodal integration. Fig. 3.8 presents a schematic illustration of MIPTN operational implementation plan together with the MIPTN key implementation phases.

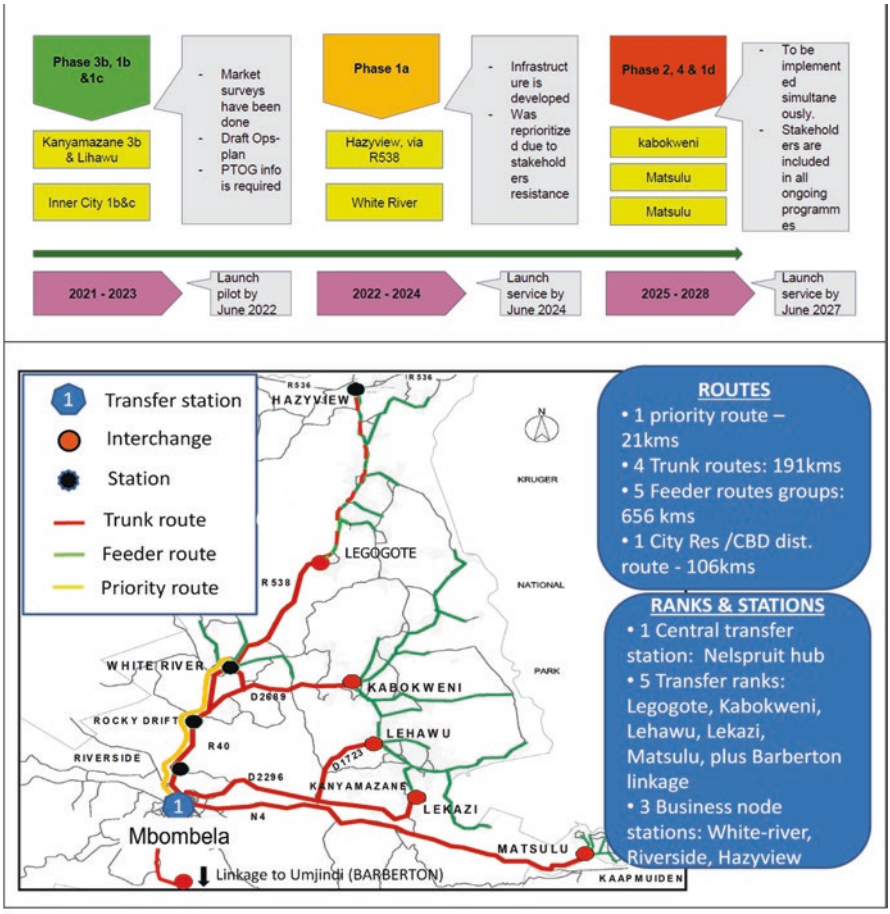

Fig. 3.8 MIPTN operational implementation plan and key implementation phases. (Source: City of Mbombela 2022)
Key: Top, MIPTN operational implementation plan; bottom, full network plan

Figure 3.8 presents the key operational principles for the MIPTN. It also highlights that the implementation follows a structured approach and has a *learn-by-doing* component built in the project execution. Research from bus rapid transport (BRT) in Lahore and Tanzania has highlighted the importance of pilot studies and pilot projects in ensuring BRT project refinement, implementation, sustainability and success (Adeel et al. 2021; Krüger et al. 2021). It is for this reason among others that the project starts with a pilot project – along Legogote Corridor only before any roll-out to other corridors is executed. From this testing pilot phase, which is based on ensuring that empirical and evidence-based research policy, planning, design and implementation lessons are built back into the MIPTN for enhanced outcomes,

future project extensions will be crafted. Central in this approach is to adapt the IPTN design if and where necessary, and ensure that the final implemented IPTN is cost-effective, affordable and contextually relevant and appropriate.

In essence the roll-out of the MIPTN plan supports the objectives of the National Development Plan (NDP-2030) that by 2030 investments in the public transport sector should foster the integration of fragmented spaces, reduction of commuter travelling distances, times and costs and improvement in public transport level of service, i.e. reliability, safety and security. These interventions are also important as part of a package of interventions aimed at promoting and building a low-carbon economy by offering transport alternatives that minimise environmental harm (Nethengwe 2022; Odiyo et al. 2022; Tait and Euston-Brown 2017). Additionally, the MIPTN is being implemented against a target of a minimum of 30% subcontracting work to small black-owned enterprises as a way of supporting and promoting the ethos, values and spirit of the broad-based black economic empowerment policy of South Africa (refer to Fig. 3.9).

It should be further highlighted that the implementation success of mega projects such as MITPN requires financial funding that usually a single financially constrained municipality such as City of Mbombela may find difficulty in mobilising. It is for such reasons that such projects are implemented within the purview of various public–private partnerships such as Built, Own, Operate and Transfer. The South African government through the Department of Transport is funding the project under the public transport scheme (refer to Fig. 3.10).

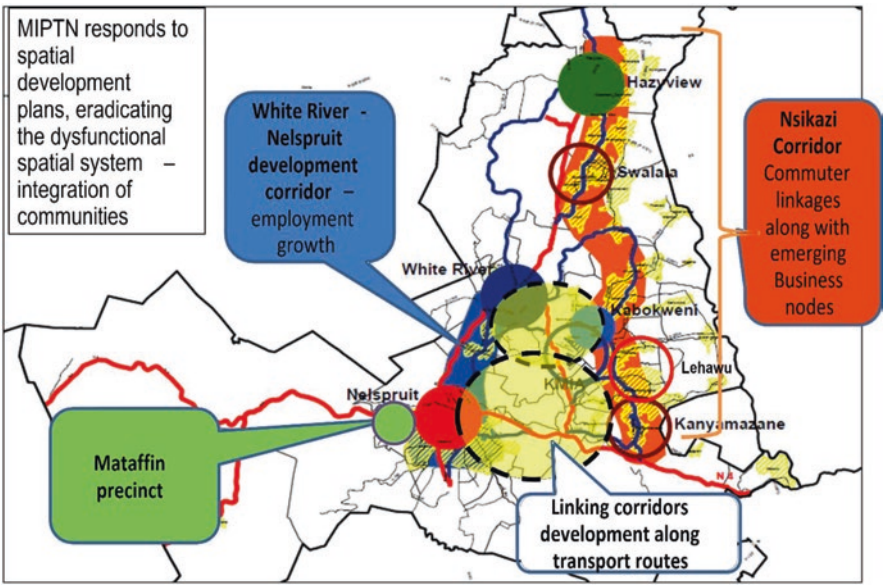

Fig. 3.9 MIPTN alignment with the spatial development framework. (Source: City of Mbombela 2022)

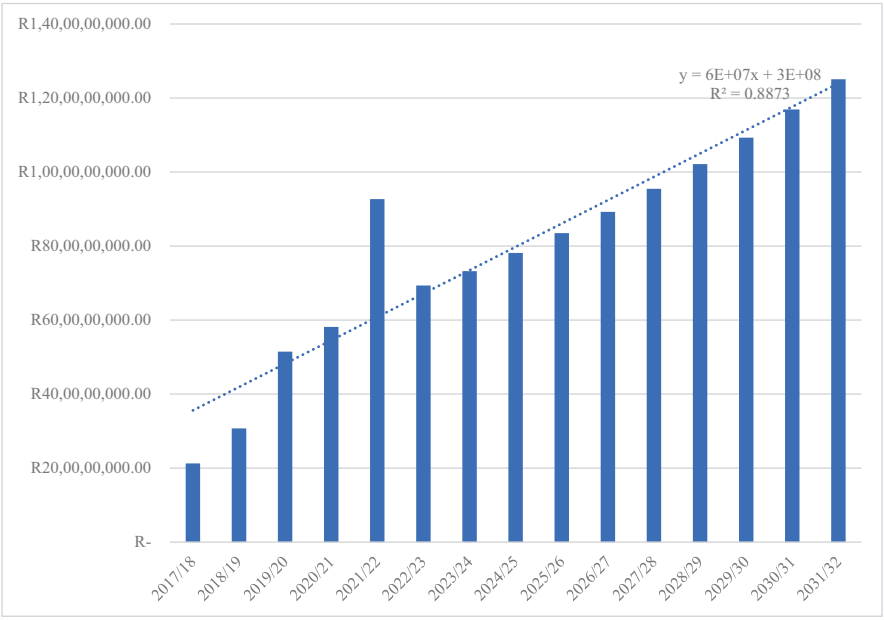

Fig. 3.10 MIPTN Capital Funding 2017–2032

In full implementation, the MITPN will move huge volumes and flows of commuters within the City of Mbombela spatial landscape. The system will provide for the implementation of an automated fare collection system – ticketing method using a card cashless system (e.g. simple tap-on and tap-off) – and make it possible to have a zonal instead of a flat ticketing system. This will bring the transport system in line with world-class public transport systems in terms of operations and quality of services (Kepaptsoglou et al. 2020; Sarjono and Wulandari 2022; Trubia et al. 2020). Table 3.10 presents the commuter volumes modelled for the Mbombela Public Transport Integrated Plan (MPTIP).

As depicted by Fig. 3.10, the MIPTN modelling results confirmed a total number of weekly passenger trip kms at 14724490, translating into 765 million per annum passenger trip kms (City of Mbombela 2019, 2022). In respect of the impact of the MITPN transport flows, movement corridors and distribution, the system will assist with:

- Reducing road congestion over peak hours, through applying public transport efficiencies and reducing travel peaks.
- Providing greater travel opportunities and certainty, through scheduled, integrated and expanded system.
- Providing greater travel choice and flexibility and reduce the public transport peaks and headways.
- Promoting and enabling shift from private cars to public transport, particularly with the residential and CBD distribution systems.

Table 3.10 Commuter volumes modelled for the MPTIP

Area of origin	Peak periods Trips	Total vehicle's	Ave passenger kms per trip	Total weekly passenger kms per trip	Total annual passenger kms
Legogote					
Bus	1.5	24	41	2,336,699	133,659,163
MBT	6	38	41	984,359	56,305,308
Feeders					–
MBT	12	20	17	430,100	24,601,720
Kabokweni					
Bus	2.0	16	29	3,856,503	220,591,952
MBT	8	20	29	623,882	35,686,052
Lekazi/Kanyamazane					
Bus	3.0	33	24	2,918,024	166,910,954
MBT	8	12	23	282,143	16,138,563
Matsulu					
Bus	1.5	31	40	1,519,804	86,932,789
MBT	6	24	40	620,792	35,509,310
Umjindi					
Bus		2	44	501,535	28,687,820
MBT	6	6	44	242,000	13,842,400
CBD distribution					
Bus	1.5	–	8	–	–
MBT	6	12	8	253,440	14,496,768
Residential distribution					
Bus	2.0	–	10	–	–
MBT	6	24	10	155,210	8,878,011

Source: City of Mbombela (2022)

- Supporting the reduction in collusions and reduced road fatalities, particularly pedestrians through integration with and investments in non-motorised transport, specifically providing pedestrian footpaths and safe crossings.
- Ultimately providing universal access for all special travel groups.
- Generally, providing an improved travel, access and safety environment.

In preparing for various implementation and transport governance systems, bilateral meetings with mini-bus taxi (MBT) industry and Buscor participation as well as between MBT and Buscor are in motion. An interesting component of the MPTIP is an inbuilt revenue formula aimed at limiting exposure to public grant funding or subsidies. This is to reduce over-dependence of the public transport system on government subsidies which has been a weakness of various public transport projects in developing countries and at times identified by research as leading to perennial inefficiencies in the functioning and operations of the public transport system (Broniewicz and Ogrodnik 2020; Vickerman 2021). Fare revenue is being modelled

to cover approximately 30–32% of the total revenue requirement. Mbombela IPTN is in a unique position, as the established bus industry currently operating under the Public Transport Operations Grant (PTOG) reflects close to 80% of the existing bulk commuter services, with MBTs accounting for approximately 20% of these services (City of Mbombela 2022). This is unlike in several South African cities in which the public commuting trips are split 60–80% in favour of MBTs and 20–40% bus industry (Rao et al. 2019; Scorcia and Munoz-Raskin 2019; Witte 2022).

Invariably, a major component of the subsidised revenue component is covered in existing Public Transport Operations Grant (PTOG) grant framework, ultimately being integrated with the MIPTN. Viewed otherwise, the operating grant will be applied to largely cover the inclusion of the MBT industry into the transport subsidy regime. While other sources of revenue are also being explored, such as advertising and trading concessions, however these will account for a small component of the revenue requirement. The Inter-governmental Relations (IGR) committee established between City of Mbombela, Ehlanzeni District Municipality, Mpumalanga Provincial Government, Mpumalanga Department of Transport, COGTA, South African Local Government Association (SALGA), Municipal Infrastructure Support Agency (MISA) and the National Department of Transport continues to play a pivotal role in facilitating engagements with Buscor and providing Public Transport Operations Grant (information to MIPTN Technical Committee) as an example. An important branding and communication outcome was a Council Approved the name *Hamba Sambe* for MIPTN. In addition, new developments such as Nkosi City, the University of Mpumalanga, etc. require critical investments in integrated public transport. While a plan to transform the Public Transport Unit into a Transport Authority has been developed, this raises questions on the adequacy of the existing municipal structure to deliver on the requirements of the MPTIP.

3.8 Discussion and Synthesis

The study findings reveal that the spatial structure, layout, design and plan of the City of Mbombela are typical and expected of most post-apartheid South African cities. These cities have spatial structures and systems with systematic and systemic differentiated, contextual and granulated history, planning, design, processes, systems, institutions and culture narratives, dialogues and struggles. Bold conversations and actions are required in confronting and dismantling these post-apartheid geography colonies with respect to the following current challenges to future desired post-colonies urban, semi-urban and peri-urban South African cities. Some of these interdependent and mutually complementary areas include:

- Exploring innovative, alternative, resilient and sustainable mechanisms, and way in respect to the phenomenon of urban sprawl, limiting densities and urban edge line spatial implications and planning.

- Confronting and tackling the problem of inter- and intra-high levels and variability of spatial inequality and a mismatch between jobs and housing especially in relation to the traditional urban core and previously disadvantaged townships and rural fringe or peri-urban zones incorporated into the city boundaries.
- Seeking to tackle fragmentation and spatial disconnection through various compactions and densification strategies such as the implementation of the transit-oriented development projects in the form of the MIPTN.
- Addressing limited diversity and inefficient land use patterns created in the form of multi-layered spatial governance and management challenges such as land invasions, housing shortages, informalities and insecure land tenure systems. These deficient systems are prevalent in peri-urban areas and the rural fringe. These phenomena and processes pose a threat and risk in respect of loss of biodiversity and benefits as increasing pressure on the natural environment threatens sustainability.

Understanding these spatial shortcomings, the dynamics that drive them and the opportunities that exist for addressing them provide a basis for moving forwards with a new transformative vision for the city. The current pattern of job dispersal within the city results in and exacerbates socio-economic exclusion, constrained mobility, high congestion, high energy and carbon intensity and environmental pollution; accentuates poverty; reinforces inequalities and high infrastructure costs; and jeopardises urban productivity. Making use of the spatial justice, spatial resilience, spatial sustainability, spatial efficiency, spatial quality and spatial transformation norms, standards, values, principles and tools as espoused in the National Development Plan (2030) and NSDF (2022) constitutes a key action plan in making the City of Mbombela a preferred city of choice to live, work, recreate and invest in for purposes of intergenerational wealth, productivity, success creation and replication.

The study findings, furthermore, highlight that the lack of integration in the public transport system is worsened by the persistent inequality between modes (i.e. mini-bus taxi, buses and BRT systems) and within modes, and by extension although not fully applicable in the City of Mbombela within the rail mode sector (i.e. Gautrain and Metrorail). These differences in public transport infrastructure investment, spatial targeting transport corridor development, service levels and quality standards constitute a layered stacking of constraints in the quest to integrated transport modes in South Africa and developing countries by extension. The differences in service levels further deepen the socio-economic divide in the society as public transport is now catering for different classes. A key objective of the Mbombela spatial development plan is to redress the spatial, economic and transport inefficiencies induced by apartheid segregation planning through among other initiatives using public transport through the MIPTN steering mechanism as a pivot in advancing spatial change and transformation. However, an emerging policy and implementation gap constraining the full realisation of the proposed spatial and transportation

models is the lack of an upfront testing model for policy and implementation feasibility and relevance prior to approval of the proposals and plans by the relevant authorities (van Heerden and van Vuuren 2022).

Unemployment, poverty and inequalities that are unbalanced in the City of Mbombela require multi-pronged approaches and solutions. These can range from place based to municipal-wide policies to incentive business investment and developments in the area. Re-imaging township economies and bringing job density, spatially targeting investments in small, medium micro enterprises as well as urban agriculture industry value chain, are possible ways to improve the spatial economies of the areas in Mpumalanga. Changing the spatial narrative and story of the areas requires seizing moments of investment and decision-making opportunities to overcome high levels of illiteracy, poverty and limited infrastructure through valorising appropriate technology, science and developments that are contextually relevant and spatially inspiring and transformative. While efforts by the Mbombela Local Municipality in adopting projects and initiatives (including public–private partnerships) that promote inclusive strategies for economic growth are commendable, the need to build the capacity and governance reporting systems for integrity is vital. Capitalising on tourism dividends through spatially targeting and linking spatial development initiative (SDI) investment and initiatives, especially the Maputo Development Corridor, i.e. N4 corridor, as part of the extended geographical economic hub for the region, will usher in a future Mbombela city region that is resilient, sustainable, inclusive and spatially more efficient than hitherto.

3.9 Conclusion

This chapter set out to explore how the application of a transit-oriented development theory and approach could present alternative growth and development pathways in Mbombela (formerly Nelspruit), Mpumalanga province as one possible way of ‘fixing’ the historical spatial jigsaw corridor-based secondary city challenges and issues. The chapter was also able to discuss how Nelspruit’s urban development opportunities can be developed taking cognisance of existing and projected growth and development constraints. The main argument advanced is that Nelspruit future spatial and land use growth and development model(s) should seek to integrate land use and transport corridor’s dividends consciously better for enhanced growth and development of Mbombela (formerly Nelspruit) and immediate environments. Generally, service delivery covering the full gamut of water and sanitation, energy, housing, transport and waste management is a pressing issue requiring urgent attention in the study area. This is because the current infrastructure is limited and unable to service all citizens since it is old and requires upgrading at great cost.

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Chapter 4
Governance in South African Secondary Cities

Lochner Marais and Verna Nel

Abstract South Africa has a well-defined set of secondary cities and a local planning regime that provides a governance framework. Its secondary cities have two main characteristics with implications for governance: they lack economic diversity, and they have large rural hinterlands. This chapter uses concepts from evolutionary governance theory to discuss six main governance challenges in these cities: strategic and economic planning, the diverse set of role players, the rural hinterland and the regional services function, mining booms and busts, spatial governance, and the pressure to become metropolitan areas. We conclude that path dependencies, goal dependencies, and interdependencies, compounded by a planning system that emphasises plan making rather than implementation, hamper governance in these cities.

Keywords Intermediate city municipality (ICM) · Governance · Evolutionary governance theory · Steering · South Africa

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4.1 Introduction

The South African Cities Network (SACN) initiated research on secondary cities or intermediate city municipalities (ICMs) in South Africa in 2012 with a report entitled 'Secondary cities in South Africa: The start of a conversation' (SACN 2012).[1] Several other reports followed (SACN 2014, 2016, 2017, 2019, 2021). The SACN research broadened the urban policy debate, increased the evidence base in these cities, and laid the foundation for policy development. In 2018 the Department of Cooperative Governance and Traditional Affairs launched the ICM Support Programme, which focuses primarily on improving infrastructure. The literature on ICMs expanded with two edited collections (Marais et al. 2016; Marais and Nel 2019), and articles on the role of urbanisation (Marais and Cloete 2017), economic diversification (Marais et al. 2021b), the role of companies in urban management (Pieterse 2022), and the 'metropolisation' process (Subramanyam and Marais 2021). Research points to the important social and economic functions of ICMs. Although some case studies have investigated governance issues in these cities (Pieterse 2021; and case studies in the above-mentioned edited books), the literature remains small.

The city categories in the urban hierarchy remain contested, with secondary cities no exception. Marais et al. (2016) use three concepts to categorise cities: size, location, and function. However, policy debates overemphasise the role of size. The demarcation of metropolitan areas in South Africa is a case in point. The Municipal Demarcation Board declared six metropolitan areas in 2001 (Cape Town, Ekurhuleni, eThekwini, Johannesburg, Tshwane, and Nelson Mandela Bay) and by 2011 had added Buffalo City and Mangaung. Most debates over which cities to include were about the size of their economy and population. Boundaries are commonly manipulated to achieve the 'required' size. South Africa has no formal definition of 'ICM'. The term refers loosely to second-tier cities with an important regional function and a large economy. The 39 designated cities have populations between 150,000 and 750,000. Size has dominated the identification of these cities, with very little attention paid to location and function.

There are two problems with overemphasis on size: it ignores the fact that these cities are often part of a larger interrelated urban system and obscures the importance of location and function. Arguments about economic size ignore the role of the rural hinterland and the role of regional services. The rural-urban interaction is important to understand the function. The word 'intermediate' in 'ICM' reflects the functional role of these cities in the mediating between metropolitan areas and their rural hinterlands.

The fact that South African municipalities are designed to include outlying rural areas has meant that in some metropolitan areas, these are extensive, but not as extensive as in most ICMs. The element of location to define a secondary city could,

[1] We use the general term 'secondary city' and the South Africa-specific term 'ICM' interchangeably in this chapter.

in some cases, override the emphasis on size. For example, some of the larger urban areas might play the role of a secondary city in sparsely populated areas even though their population numbers may not reach the required threshold. Upington in the Dawid Kruiper local municipality in the Northern Cape is a typical example. Thus, although secondary cities are usually smaller than metropolitan areas (in terms of their economy and population), they mediate between town and country. Often, its location is critical to understanding this role.

Size, location, and function are all important attributes to understand governance. They influence strategy and the ability to steer. They must be understood if long-term dependencies are to be avoided. However, governance and planning often ignore these attributes. We need to analyse governance in secondary cities in South Africa due to their economic vulnerability, extensive rural hinterland, and their link with larger cities. Many of them have one dominant economic sector and often this is mining. This vulnerability requires an appropriate governance response. This chapter uses evolutionary governance theory to analyse the main governance challenges for ICMs in South Africa.

4.2 Governance and Evolutionary Governance Theory

Urban governance is the process by which governments (local, regional, and national) and stakeholders collectively decide how to plan, finance, and manage urban areas (Avis 2016, p. 1). The word 'governance' has a broader meaning than 'government' as it includes the roles of the private sector and community organisations. Evolutionary governance theory (Van Assche et al. 2014; Beunen et al. 2015) provides a framework for analysing governance and how it changes. It draws on several earlier theories: biological evolutionary theory, new institutional economics, poststructuralism, social systems theory, new institutional economics, and actor-network theory. It provides a middle ground for politico-economic ideologies. It emphasises non-linear causality and slow change (evolution) and how relationships between markets and societies evolve. We chose to use evolutionary governance theory because it provides a framework for understanding changes in governance. It acknowledges that this change is slow, observes that failure to change is often rooted in historical actions and strategies, and emphasises the complexities of governance and its interrelationships.

Evolutionary governance theory identifies three types of dependency: path dependency, goal dependency, and interdependency. The concept of path dependency originates from historical institutionalism (Krasner 1984) and new institutional economics (North 1990, 2005). It refers to how historical decisions influence current choices. A notable example of path dependency is our dependence on the QWERTY keyboard. Designed more than a hundred years ago to prevent the keys of a typewriter from jamming, this keyboard format is still used even though typewriters are obsolete. Different keyboard settings could improve typing speed, but changing is far too difficult and would be disruptive. The QWERTY keyboard is a

typical example of what North (2005) refers to as 'lock-in' or the inability to escape the consequences of historical decisions. Not all path dependencies lead to lock-ins, but most governance choices are made based on history. Although each new policy or strategy sets out a new path, the path rarely straddles the boundaries of decisions taken in the past.

Goal dependency refers to the way shared visions affect current decision-making (Van Assche et al. 2014). The Sustainable Development Goals are an example of a shared global vision. However, some of these goals may not be appropriate for all societies or might even be counterproductive. Marais (2023) has shown how South Africa's goal of replacing the apartheid system of migrant labour and hostels has led to poor housing for mineworkers. The policy has ignored the fact that migration may be valuable to mineworkers. This shows how implementing a shared vision can fail to achieve the original intended result.

Interdependency refers to the relationship of trust or conflict between people and their organisations. As Van Assche (2016, p. 21) explained, 'actors depend on other actors and institutions, at one point in time, while institutions depend on actors for their production and reproduction'. Good governance requires both collaboration and alternative ideas. For example, the real estate industry requires collaboration and trust between real estate agents, banks, and attorneys. Trust helps simplify the complexities. However, conflict and alternative ideas need not be negative. A functioning democracy requires both opposition (alternative thinking and conflicting ideas) and collaboration (policy making).

To overcome these dependencies, governments use strategies to change the status quo. This is often referred to as 'steering'. Beunen and Van Assche (2021) say that 'steering' is the ability of governments and partners to develop strategic, policy, and planning solutions to problems. Steering, in turn, is associated with the New Public Management paradigm, which emphasises plan making over implementation (or 'rowing'). The conflict between dependencies and the ability to steer or find alternative strategies is at the heart of governance challenges. Strategic planning provides a way to develop new governance paths despite dependencies. Steering has been criticised (Klijn 2008), and, more recently, the focus has shifted to 'network steering' (the emphasis on building networks while steering or using steering to create networks). Still, despite some promise, there is very little evidence of success.

4.3 Methods

The chapter originates from extensive research on South African secondary cities over almost a decade. The research started with an assignment from SACN (2014). In addition to the long-standing work, the article was informed by four case studies of governance and economic planning in secondary cities in South Africa. Comparative case studies include Matjhabeng, Rustenburg, Emalahleni, Newcastle, and Sol Plaatje. This includes document analysis of policies, annual reports, and 16 key informant interviews in the 5 cities and 2 workshops with participants from Rustenburg and Sol Plaatje. We used thematic analysis to identify governance themes.

4.4 Governance Challenges in South African ICMS

We provide an overview of governance and then discuss six themes associated with the governance of ICMs: strategic and economic planning, the diverse set of role players, the rural hinterland and the regional services function, mining booms and busts, spatial governance, and the pressure to become metropolitan areas. Although we discuss these six themes individually, we acknowledge that they are interrelated.

4.4.1 Overview of Governance in ICMs

The ICM Support Programme identified 39 ICMs in South Africa, as shown in Table 4.1, which is too many. Although many cities may fall into the population size range mentioned above, their economies are not large enough to qualify as an ICM in our opinion. Table 4.1 and Fig. 4.1 show the diversity of these cities, grouped into five categories.

Together, these 39 ICMs contribute 24% to GVA in South Africa and host 27% of the population. However, despite the importance of these cities for the economy of South Africa, the evidence points to inadequate governance and an inability to solve complex problems. Many ICMs are vulnerable because their economies are less diverse than those of metropolitan areas. Most of them depend on a single economic sector (usually mining or manufacturing), which is dependent on a volatile global market whose ups and downs are beyond local government control. Very few of them have been able to create alternative economic sectors and reduce their economic vulnerability. This has serious governance implications.

Table 4.1 Categorisation of ICMs in South Africa

Large and semi-verse	Mining	Manufacturing	Service centre	High population, low GVA
Emfuleni	Ba-Phalaborwa	Alfred Duma	George	Bushbuckridge
Mbombela	Emalahleni	Drakenstein	Giyani	Enoch Mgijima
Msunduzi	Fetakgomo Tubatse	Govan Mbeki	JB Marks	Tzaneen
Polokwane	Lephalale	KwaDukuza	Maluti-a-Phofung	King Sabata Dalindyebo
	Matjhabeng	Metsimaholo	Matlosana	Mahikeng
	Madibeng	Mogale City	Mogalakwena	Makhado
	Merafong	Newcastle	Nkomazi	
	Rand West	Stellenbosch	Ray Nkonyeni	
	Rustenburg	uMhlathuze	Sol Plaatje	
	Steve Tshwete		Thulamela	

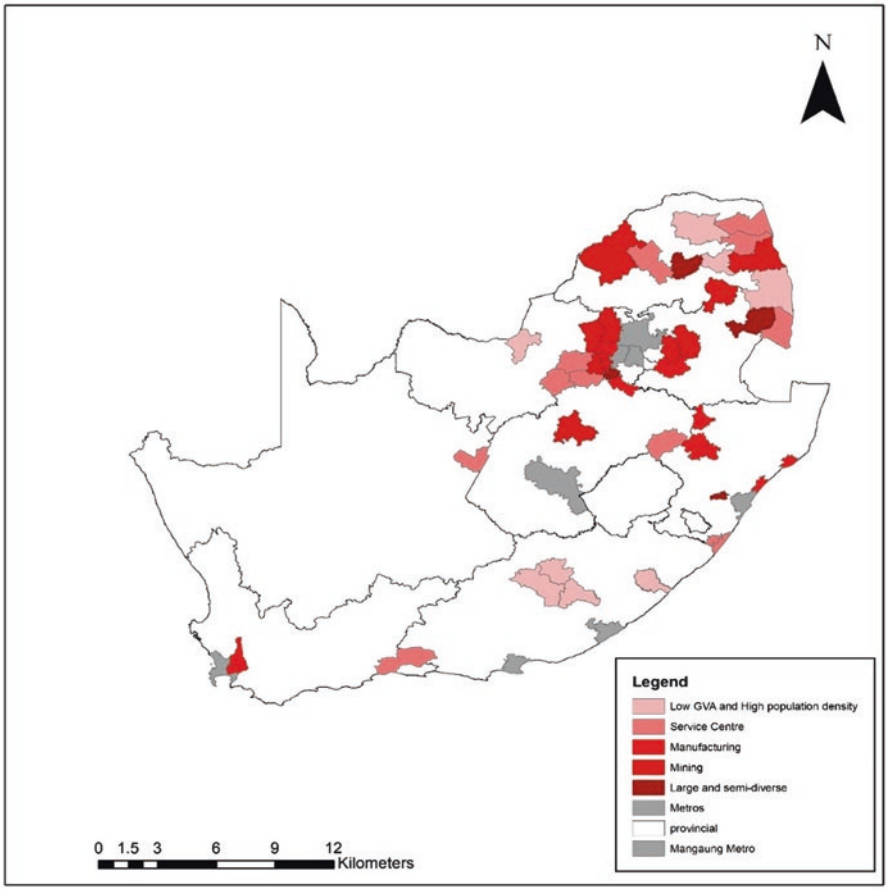

Fig. 4.1 Locations of ICMs

Finding the right personnel is another problem that affects their governance. The number of staff vacancies indicates the ability of an organisation to attract and retain staff. The SACN found that 23% of local government posts in ICMs are vacant, compared to 11% in metropolitan areas (SACN 2021). An earlier report (SACN 2017) pointed to the lack of appropriate staff competencies for spatial planning in ICMs. Very few of these municipalities developed their spatial plans in-house. Staff shortages lead to inefficiencies, as can be seen in an estimate by SAPOA (2017) of the costs associated with slow approvals of new land developments in Mbombela. Similar competency problems exist in local economic development (SACN 2019). These municipalities rarely appoint economists to their economic development units or forecast economic scenarios. Failure to consider alternative economic futures means that planning seldom considers uncertain futures.

In addition to staff problems, there is an array of governance concerns about municipal finance, such as citizens refusing to pay municipalities for services and municipalities struggling to pay their creditors. Of the ten municipalities that owe the largest amounts to Eskom (South Africa's electricity utility), five are ICMs (SACN 2021). Only 45% of the ICMs obtained an unqualified audit (during the 2019/2020 financial year). In the 2017/2018 financial year, the proportion of 'fruitless', 'unauthorised', or 'unacceptable' expenditures was 24%, compared to 9% in metropolitan areas, and these expenditures were higher per capita in ICM (R1176) than in metros (R830) (SACN 2021). There are also concerns about political leadership in ICMs. The mayors of approximately 38% of the ICMs did not complete their 5-year term (2011–2016) (SACN 2021). None of the metropolitan areas had this experience during that period. This inability of mayors to complete their terms points to more political instability in ICMs than in metropolitan areas.

4.4.2 Strategic and Economic Planning

Strategic planning is important for ICMs as they have the potential to grow and avoid the mistakes that larger cities make. The integrated development plans (local strategic plans, known as IDPs) that South African municipalities must create are inspired by the New Public Management paradigm (Harrison 2001), which came to prominence in the early 1990s and favours steering over rowing.

Table 4.1 shows ten ICMs in the mining category and nine others have mining sectors greater than 12%. There are nine in the manufacturing category, and those in the semi-diverse category also have substantial manufacturing sectors. Their strategic planning aims at economic diversification to counteract their vulnerability to global market volatility. However, the success has been limited. Marais et al. (2021a, p. 382) argue that economic transitions are 'particularly difficult for mining towns ... because the mines create a false sense of security', a form of path dependency that reveals a mindset of continued historical prosperity. Consequently, the strategic plans of ICM assume long-term prosperity, despite evidence of economic and population decline (Marais and De Lange 2021). Except for Newcastle, all mining ICMs have struggled to transit from mining (Marais et al. 2021b). Mining and manufacturing companies play a dominant role, and it is not uncommon for some companies to perform municipal functions (Marais et al. 2022), creating a long-term interdependence that can be disrupted when a mine closes.

Plan making, often on a grand scale, tends to dominate, to the neglect of implementation, and unrealistic assumptions are made about funding from other spheres of government. Matjhabeng and Rustenburg are prime examples of this (SACN 2021). In Matjhabeng, where economic diversification remains elusive after 30 years, various organisations operating outside the ambit of the municipality (in line with the New Public Management paradigm) have tried to deal with the problems caused by the decline of the mines (Marais 2013), but they continue to suffer

political interference. Most municipal plans assume that investment will come from other branches of government. Big plans overshadow small incremental projects, and planners blind to natural economic diversification processes. Their plans do not, for example, refer to a regional services function. And the possibility of the city shrinking is not considered.

Rustenburg has been proactive in developing a strategy to counter the decline of mines. Although some mining retrenchments have occurred over the past decade, the area still depends on platinum mining. The likelihood of mine decline has led to the appointment of consultants from a Singapore-based consulting firm to develop a post-mining plan (Mosiane 2021). This plan has many grand ideas that rarely reflect reality. Rustenburg is more closely associated with Singapore than with African urbanism. The city ignores the possible benefits of its links to Gauteng, South Africa's economic powerhouse. Its plans make little reference to the importance of roads and other links with Gauteng but rather set Rustenburg up for direct economic competition with Gauteng, a battle it is unlikely to win.

Mining and manufacturing create several dependencies. Governance approaches assuming long-term prosperity are an example of path dependency. Perception of long-term prosperity makes it difficult to imagine decline. Consequently, local governments plan for growth even when the economy declines (Marais and De Lange 2021). There is also evidence of goal dependency. The goal of using mining as a foundation for development can overshadow the possibility of mine closure (Marais 2023). Housing policymakers in mining areas promote homeownership, oblivious to the likelihood of decline. Appropriate migration between labour-sending areas and mines could be a better way for mineworkers to manage the temporality of mining. Finally, strategic planning is affected by the interdependence between local governments and large companies. Mining companies, as mentioned above, have taken over some local government responsibilities, such as providing water or repairing electrical infrastructure.

4.4.3 Diverse Set of Role Players

Earlier, we noted that governance goes beyond government and includes interactions between government, the private sector, and community-based organisations. In practice, these interactions include liaisons with multinational corporations and traditional authorities, organisations whose demands differ. Mining corporations employ large numbers of people, bolstering the financial viability of municipalities but also creating local problems in the form of tailing dams, pollution, and social disruption. Traditional authorities manage large tracts of land, creating a conflict with municipalities about the maintenance of this land. These organisations become part of the governance of cities and influence the thinking of decision-makers (in some cases, traditional leaders have representation on local councils). The interdependence between government and traditional leaders and multinational

corporations is a specific governance challenge for ICMs. Although some metropolitan areas (eThekwini, Mangaung, and Tshwane) have similar situations, their large economies and diverse economic sectors make it easier for them to cope.

Different skill sets are required to manage these two types of organisation. Companies usually have specific requirements for themselves and their employees. Large investments result in an influx of people and put pressure on municipalities to develop new land, sites, and services. Companies have specific water and electricity service requirements. The challenge is to support companies while managing adverse consequences. This reality is compounded by the fact that these multinational organisations must deal with global market volatility, which in turn has local economic implications. Where there are traditional authorities, the challenge is how to service the land. Mineworkers have settled on large pieces of land managed by traditional authorities (Marais et al. 2021a). Providing municipal services on such land is difficult because traditional authorities see this as undermining their authority and the result can be conflict (Ntema 2019).

The planning nature of steering is not appropriate to deal with these realities. These interdependencies between secondary city municipalities, multinational corporations, and traditional leaders require appropriate networks and facilitation.

4.4.4 The Rural Hinterlands and Regional Services Function

A notable characteristic of a secondary city is a rural hinterland or a regional services function. Many people in rural areas travel to the city to buy higher-order goods and access specialised services (health, education, banking, insurance, etc.). Yet planners tend to neglect the rural services function for various reasons: it is a low-key approach (contrasting with big plans for economic diversification), it is a function that develops automatically, and very few people notice its value, and analyses using the nine main economic sectors and their subsectors do not give direct information about the regional services function.

So, what can secondary cities do to promote their regional services function? Very few practical guidelines exist. Good rural roads would help, giving rural people access to the city. Good access to other small towns is also important. But roads between towns and cities are usually the responsibility of the provincial government. Active collaboration between local and provincial governments (another example of interdependency) is required to ensure that something is done. Another requirement is adequate trading spaces to ensure that the town can attract higher-order goods. In many cases, this second requirement is all that ICM planners focus on. Other ways to improve the function of regional services would be to build hospitals and schools (private or public) with boarding facilities. These facilities would require guest houses and overnight accommodation for relatives of people who use them. Cities could use their land use systems to facilitate this, for example, by giving

preference to developments with a regional services function and speeding them up. Tax rebates on new developments with a regional services function could also help.

Local governments must move away from grand plans to understand and develop the function of regional services. They must consider who the actors are and how to help them through land use planning. Rather than focusing on plan making, they need to put their energies into building appropriate networks. To do this, they need to understand the less dominant economic interdependencies.

4.4.5 Mining Booms and Busts

Mining is a major economic sector in approximately half of South Africa's ICMs. Historically, diamonds, gold, and coal created mining towns, with platinum, iron ore, and manganese becoming prominent over the past three decades. The resource boom of the early 2000s boosted the economy of many of these towns, but some experienced busts. Both booms and busts require governance responses (Van Assche et al. 2020). ICMs have found it difficult to deal with both. Booms bring a large influx of people. Rustenburg is a good example of a rapid increase in population since the early 1990s, an influx further complicated by people settling on traditional land (Ntema 2019) and making it difficult for the municipality to provide services, as traditional authorities are unwilling to permit this. Booms can create governance problems. Emalahleni is an example where booms have given an impression of long-term prosperity. The governance response has been to waste large amounts of money due to the municipality's perception that it was rich (Campbell et al. 2017). As a result, the city has been on the verge of bankruptcy for the past decade and owes Eskom more than R5 billion.

The possibility of a town shrinking and what to do about this is not discussed in governance or planning. Merafong City, for example (a former gold mining area), has seen a decline in its population and municipal revenue (Marais and De Lange 2021). However, little thought has been given to the value of decline. Most of the plans focus on the reform of the economy and further growth. Planning for booms and busts must be flexible. But this is hampered by the rigid IDP process (missions and visions, once established, are seldom reconsidered in a specific cycle), the focus on steering, and inflexible land use planning systems.

A boom creates a path dependency based on the expectation of continued economic prosperity. The result is that the decline is ignored. Interdependencies change when busts replace booms. Mining companies are in a mode of managing the decline. Common responses from mining companies are to sell to smaller companies or place the mine in care and maintenance. Ownership changes mean that government officials must negotiate with other companies, and this usually changes the social investment strategies and existing interdependencies.

4.4.6 Spatial Governance

Spatial governance is important due to the country's history of segregation and apartheid planning. Ironically, post-apartheid housing policy has largely reinforced historical patterns (Huchzermeyer 2010), and the post-apartheid planning approach has loosened political control of planning in South Africa (Harrison and Todes 2015). Although this has been a welcome development, it has created new problems. The Integrated Urban Development Framework (IUDF) is the government's latest attempt to guide the spatial transformation of all South African cities (CoGTA 2016). The IUDF acknowledges different types of settlement and makes specific references to ICMs. It has four goals: spatial integration, inclusion and access, inclusive growth, and appropriate governance to improve state capacity. In the following, we outline our concerns about spatial governance in the ICMs.

Very few spatial development plans are drivers of development in ICMs (SACN 2017). ICMs struggle to implement plans, and the lack of implementation, in turn, reinforces the emphasis on plan making. Part of the problem is difficulty obtaining competent staff. Those currently employed have little institutional memory and experience and do not satisfy the expectations of large firms and poor communities. ICMs need a nuanced application of the ideas in the IUDF. For example, they should focus more on overcoming their economic vulnerability (because of dependence on mining), improving their rural-urban links (including dealing with planning difficulties with traditional land), and managing urban sprawl (Marais et al. 2020).

ICMs could exploit land use and spatial planning to reduce their economic vulnerability. They could start by focusing on post-mining land use and ensure that the mines rehabilitate land to make it usable for alternative economic purposes. They must take the rural-urban interaction seriously and establish a flexible land use system to improve the function of regional services. It will be difficult to change the segregated and fragmented nature of South African cities. But ICMs should find it easier to change than larger cities, which have a longer history of following the path of segregation.

4.4.7 Metropolisation

One common theme in ICM research is their desire to become metropolitan areas, largely due to a desire to improve their status and the perception that metropolitan municipalities receive more money from the national treasury. The addition of Buffalo City and Mangaung to the list of metros has encouraged ICMs to strive for upward mobility, in the belief that they could be next.

Polokwane, George, Mbombela, and Rustenburg all want to become metropolitan municipalities (metros). Their arguments are usually about status, getting higher salaries or councillor allowances, or, simplistically, population size. They think it will be easy to expand the municipal area and increase the population, a manoeuvre

that was successfully used to make Mangaung a metropolitan area. They argue that there should be at least one metropolitan area in each province. Yet, as we noted in the Introduction, their arguments seldom reveal a nuanced understanding of location and function. Appropriate local economic data are scarce, and analysts discredit the available data. Furthermore, local protagonists ignore the risks and vulnerabilities of becoming a metro, with Mangaung being a case in point (Subramanyam and Marais 2021). Within 10 years of Mangaung's improvement of status, services have deteriorated, and the municipality is in a poor financial position and has been placed under administration (i.e. the national government has taken over the management of the municipality despite the fact that the political council is still in control).

The desire to become a metro can be seen as an example of goal dependency, and Mangaung is an example of the problems that spring from achieving an ill-advised goal. The transformation of a metro has put more pressure on municipal finances and capacities than Mangaung can cope with. A more appropriate response from ICMs would be to understand and accept their role in the space economy and to do the best they can from it.

4.5 Conclusion

South Africa has made good progress in understanding the role of ICMs in the urban system and developing a policy approach. However, governance in many ICMs is poor. The core of these concerns is the vulnerability of these cities because they lack economic diversity. The economic sectors on which ICMs are based are at risk of volatility in the global market. Against this background, the chapter used evolutionary governance theory to discuss six main governance challenges for ICMs in South Africa: strategic and economic planning, the diverse set of role players, the rural hinterland and the regional services function, mining booms and busts, spatial governance, and the pressure to become metropolitan areas.

We think that the dependence on steering in the plan-making process and the effect of dependencies make governance in ICMs difficult. There are several path dependencies. Historical spatial planning is an example of how path dependence affects urban planning and encourages sprawl, despite new policy guidelines. Another notable path dependency is planning on the assumption of continued economic prosperity. The dependency on goals is evident in the expectation of ICMs that they can become metropolitan areas (without considering the practical problems). The general expectation that mining should support local development is an ill-advised goal dependency when mine closure threatens. The range of interdependencies between traditional authorities and multinational corporations and different spheres of government further complicates governance in ICMs. To escape these dependencies, ICMs need to plan for current realities and focus on networks and governance rather than steering. Plan making must be accompanied by the ability to create change and find new governance approaches.

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Part II
Urban Land Governance

Chapter 5
Transactional and Supplementary Strategies for Accessing Land Among Migrants on the Margins: An Ethnographic Study Among Malawian Migrants at Lydiate Informal Settlement, Zimbabwe

Johannes I. Bhanye, Vupenyu Dzingirai, and Maléne M. Campbell

Abstract This chapter examines the various transactional and supplementary strategies adopted by migrants on the margins to access much-coveted land. Situated in transnational theory, the study is based on ethnographic fieldwork in Lydiate, a peri-urban informal settlement of Norton town, a secondary city in Zimbabwe. The study revealed that left alone, marginalised migrants in secondary cities resort to transactions in the form of inheritance, purchase, and rentals based on fictive kin. They also affiliate with modern political patrons, traditional leaders, and investors in accessing land. In other instances, migrants turn to supplementary strategies such as using occult, witchcraft, and land seizures to secure land. However, supplementary strategies are measures of last resort. The study concludes that informal settlements in secondary cities emerge as 'hyperactive' spaces with novel forms of authority that regulate access and security over resources for urban settlement and production. It also emerges as a zone of conviviality, where people deploy time and affection in generating resources necessary for their reproduction in contested spaces that they too eye for as home of a sort. These insights are consistent with transactional theory in social anthropology that argues that individuals are not limited by hostile or risky environments in which they live. They create shortcuts, bypass agreed social rules,

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and find strategies to secure resources and achieve long-term interests. However, marginalised populations do not always adopt competitive strategies to access resources, as postulated by transnational theory. What is modest in this study is that sometimes people enter into conviviality and other cooperation mechanisms within themselves and across to secure their interests and belonging. The study recommends that responsible authorities craft policies and arrangements to ensure that marginalised migrants have formal land access in fast-growing secondary cities.

Keywords Land · Informal settlement · Peri-urban · Transactional · Supplementary · Secondary city · Zimbabwe

5.1 Introduction

Cities and towns have long been regarded as engines for growth and socio-economic development (Angel 2012; Roberts 2014). This is justified, as cities and towns are characterised by a considerably high level of infrastructure and institutional development, and subsequently the ability to attract investment, ensuring employment and better services and amenities to attract populations (Roberts 2014). The African continent continues to record the highest growth rates of cities and towns worldwide, with projections that more than half of the population will reside in cities and towns by 2050 (Githira et al. 2020). In particular, much of the urban growth in Southern Africa has occurred in secondary cities (John 2012; Matamanda et al. 2022). Secondary cities are geographically defined urban jurisdictions or centres performing vital governance, logistical, and production functions at a subnational or submetropolitan region level within a system of cities in a country. These fast-growing cities range in size from a few hundred thousand to several millions; globally, they are home to around 30% of the world's population (Githira et al. 2020).

However, urban development efforts have traditionally been centred on primary cities, creating spatial and socio-economic polarisation and, subsequently, spatial, economic, and social inequalities and deprivations in secondary cities and towns. These inequalities can be attributed to rapid and uncertain external and internal economic, social, and environmental events and changes. The effect has been to deprive many people living, and businesses located outside of metropolitan areas, in secondary cities, from enjoying the same benefits and opportunities as those living in larger cities (Ceppi 2020; Matamanda et al. 2022). Most secondary cities struggle to create or retain jobs, have high levels of unemployment, and find it difficult to diversify and revitalise their economies, retain capital, and attract investment. Other secondary cities are rapidly growing without the capacity to manage urbanisation (Cities Alliance 2021). They face considerable backlogs in demand for infrastructure, housing, and other essential urban services (Roberts 2014). In Southern Africa, most urban dwellers in secondary cities do not have access to at least one of the

following amenities – durable housing, sufficient living area, access to improved water, improved sanitation, and secure tenure – simply put, they live in poverty (Foster 2016).

While there has been widespread recognition of the emergence and importance of secondary towns and that they suffer multiple deprivations compared to larger metropolises (Githira et al. 2020; Roberts 2014), little has been documented regarding how the inhabitants of secondary cities establish themselves in the face of the various deprivations. The aspect of access to land for housing and urban production among marginalised populations in secondary cities has received particularly less attention. Although third-world governments have devised different policies, strategies, and programmes to solve land tenure and urban housing problems in secondary cities through public housing, sites and services, redevelopment, slums, and area upgrading, among others, the strategies have failed to provide for the needs of marginalised populations on a larger scale (Dhlamini 2018). Preliminary studies show that, in response to the lack of adequate formal response to the increase in demand for land for housing, informal settlements often located in the city peripheries or 'peri-urban' are the logical response of marginalised populations in secondary cities (Nassar and Elsayed 2018).

Most marginalised populations in the peripheries of secondary cities are often regarded as 'migrants'. Indeed, scholarship has documented how migrants in African cities helplessly establish self-planned settlements or informal settlements in response to unsustainable and ineffective land transformation systems in Southern Africa (Landau 2014, 2018; Posel and Marx 2013). These settlements are seemingly illegal and chaotic places, with minimal presence of the state, and they have long been treated reactively by the state and local elites (Bhanye 2022a, b; Bhanye and Dzingirai 2020a; Le Roux and Napier 2022). However, the settlements continue to thrive in towns and cities in Southern Africa, and there seem to be transactions of a sort, drawing on various normative orders, including state law, rules of market exchange, and customary practices that facilitate the thriving of migrants in informal settlements. Bhanye and Dzingirai (2020b) referred to these transactions as structures and networks that facilitate access to coveted resources such as land among marginalised migrants.

This chapter presents transactional and supplementary strategies adopted by marginalised migrants in accessing land in peri-urban spaces of secondary cities. Marginalised in the context of this chapter means discrimination and exclusion (social, political, and economic) because of foreign origin of Malawian migrants in Zimbabwe. In this study, Malawian descendants in Lydiate will be called migrants and/or Malawians because of their continued marginalisation in the foreign land. By definition, a migrant is a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons (IOM 2020). Transactions in this chapter refer to arrangements, negotiations, and/or dealings that involve an exchange or transfer of goods, services, or other obligations. Supplementary strategies refer to additional mechanisms, often measures of last resort. The chapter is based on a case

study of migrants (hereafter referred to as Lydiatians) at Lydiate squatter settlement located in the peri-urban of Norton town, a secondary city in Zimbabwe.

The chapter is organised as follows. The next section presents the theoretical framework that guides this study. This is followed by the presentation of the area of study, Lydiate informal settlement, and the study methodology and ethnography. The section below presents the results, illustrating the various transactional and supplementary strategies adopted by migrants on the margins to access land. This is followed by the discussion section demonstrating the extent to which the study falls within the tenets of the transactional theory presented in the following. Finally, the study conclusion is presented, highlighting that informal settlements in secondary cities are emerging as 'hyperactive' spaces with novel forms of authority that regulate access and security over resources for urban settlement and production.

5.2 Theoretical Framework: Transactionalism

This study is informed by transactional theory. Transactional theory can be traced from the works of dissidents of orthodox structural functionalism. Structural factionalism emphasised the power of structure and society over individuals. It was dominant up to the 1950s as epitomised in the works of scholars like Parsons (1952) and Radcliffe Brown (1952) in sociology and anthropology. From the 1950s onwards, there were a number of attempts to move anthropology away from formal, society-centred paradigms like structural functionalism towards more individual- and action-centred ones. Arguably, the most important outcome of this change of focus has been transactional theory. Transactionalism is a fancy term for the simple principle that 'you scratch my back and I will scratch yours'. Transactionalism owes much to the work of Malinowski and somewhat less to Marx. Transactional theory became more exemplified in Barth's ethnographic observations of the Swat Pathans in Pakistan (Barth 1959).

In the hands of Frederik Barth (1959, 1966, 1967), simple propositions about exchange and reciprocity yielded an understanding of how individual decisions about the deployment of time and sociopolitical and productive resources simultaneously generate different patterns of behaviour, some of which 'reproduce' custom, while others institute change (Cheater 2003). Through refinements by the 'Manchester School', transactional theory presents the individual as being creative and resilient in the face of obstacles arising from hostile arenas within which they live (Ritzer and Stepnisky 2014: 126). Thus, from this perspective, the individual, not culture, as stressed by structural functionalists, should be seen as an agent of change (Erickson and Murphy 2008). Individuals will use human agency, the various ways people view and negotiate the myriad of circumstances they find themselves in, to overcome structural limitations (Bhanye and Dzingirai 2020a).

There are many closely related tenets derived from the transactional theory that guided this study. These are the following: (a) the environments in which people live are risky, (b) the use of strategies to acquire resources and ensure survival

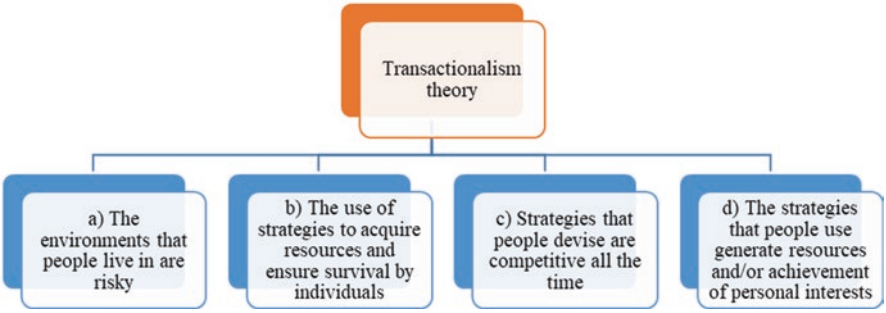

Fig. 5.1 Transnationalism theory. (Source: Authors)

by individuals, (c) the strategies that people devise are competitive all the time, and (d) the strategies that people use generate resources and/or achievement of personal interests, as shown in Fig. 5.1.

5.2.1 The Environments in Which People Live Are Risky

The first tenet of transactional theory that guides this study is that the environments in which people live are risky and hostile. Transactionalists posit that individuals and communities are confronted with hostile social, cultural, political, economic, and environmental circumstances that constrain their survival (Ritzer and Stepnisky 2014). Nyamwanza and Dzingirai (2019) refer to these communities as rough neighbourhoods, with individuals facing illegitimacy that leaves them open to hostilities and abuse in the foreign cityscapes they occupy. What exacerbates the hostility of these people's environments is the existence of multiple groups surviving in the same space and often eyeing the same resources (Dzingirai 1999).

Transactionalists also contend that many individuals/communities are often located in landscapes of scarce resources (Barth 1953, 1966, 1969; Leach 1964; Mills 1956). Due to resource scarcity, individuals and communities are often locked up in conflicts and wars (Klare 2002). In the Binga and Bulilimamangwe areas of Zimbabwe, Dzingirai and Madzudzo (1999) observed conflicts over how land should be used and by whom. The other reason environments are risky is that the state has a hand in local-level processes. Bailey (1973) and Cheater (1984) argue that almost always community and individual activities occur in state contexts. This process as 'encapsulation', wherein local intuitions are embedded in the state or linked to the state with its own agenda, is termed 'encapsulation' (Bailey 1969: 149). Therefore, the environments in which people live are rough, so individuals must take risks (Bhanye 2022a, b) and adopt innovative strategies to remain in them (Bhanye and Dzingirai 2020a; Nyamwanza and Dzingirai 2019).

5.2.1.1 Individuals' Use of Strategies to Acquire Resources and Ensure Survival

Using strategies to acquire resources is another key aspect of transactional theory. This has been popularised by Bailey (1969) as 'stratagems'. In support of this tenet, proponents of transactional theory hold that individuals are not limited by the social and physical environment they are living in (Firth 1955; Barth 1956; Lewis 1970). People find strategies when blocked (Bhanye and Dzingirai 2020a; Leach 1964; Mauss 1970; Dzingirai 1999, 2008) from securing resources, or they create shortcuts (Cheater 1984), deliberately misinterpret rules (Bhanye 2022a, b), or bypass agreed social rules (Dzingirai 2008), all in a bid to ensure that their interests are met. Erickson and Murphy (2008) observed that social relationships are generated, sustained, and changed because of the economic choices that individuals make, each of whom has learnt to play and manipulate the rules of a social game.

Some of these strategies are normative, but the rest are often pragmatic (Bailey 1969; Cheater 1984). Cheater gives substance to this theoretical concept in *Idioms of Accumulation* (1984), pointing out that the rules are often meant to challenge the system. People can also evoke their inventiveness and reflexivity by manipulating existing institutions around them and creatively overcoming any structures that might constrain their efforts to survive on a daily basis (Bhanye and Dzingirai 2020a; Dzingirai 1992). During preliminary visits to Lydiate, the researcher encountered some incidents of migrants as innovators of survival strategies that justified the use of transactional theory, particularly because of its focus on survival strategies.

5.2.1.2 The Strategies That People Devise Are Competitive All the Time

The third tenet of transactional theory that guides this study is that the strategies that people devise are competitive all the time. To outmanoeuvre others, individuals use games, plots, schemes, and manipulations to ensure that they achieve their primary goal of surviving and acquiring resources (Bailey 1969; Klare 2002). Individuals can also use narratives to create and support entitlements to resources. This was demonstrated in later works of Bailey (1983) when he draws attention to 'tactical uses of passion', a process where individuals 'cope by falsifying experience' (Bailey 1983: 13) or use narratives to justify claims to resources. Bailey advances that people will adopt deception or falsify information, saying one thing and yet doing something different, in a bid to achieve goals, gain power over their adversaries, or cope with situations (Bailey 1969). Such individuals may present their opponents as evil, as threats, or as constituting a danger to society (Bailey 1969). Barth (1969) also put forwards the argument that by observing how people interact with each other, an insight can be gained into the nature of the competition over resources.

In some cases, the competition can be over material things, while in others it may be over power (Boissevain 1964). This study involved competition over patrimony, and it was evident from the preliminary visits that it would be saturated with competitive strategies of all sorts, all bent on ensuring one's claim over the

much-coveted land. Thus, the study adopted transactional theory to understand various competitive strategies individuals and/or groups used in their struggles over land and establishing themselves in the peri-urban. The need to understand the competitive strategies of migrants on land also influenced the adoption of the ethnographic research method.

5.2.1.3 The Strategies People Use, Generate Resources, and/or Achievement of Personal Interests

The last component of the transactional theory that guides this study stresses that the strategies people use generate resources and/or the achievement of personal interests. Here, transactionalists contend that the strategies that individuals use to survive in risky environments are generative of resources and/or personal interests (Barth 1981). In the words of Barth (1981: 2), individuals are 'goal pursuing', targeting the achievement of their own interests that results in survival, materially or otherwise (Homans 1961). Cheater (1984) observed that individuals are motivated by accumulation. Here, the individual is seen as an entrepreneur, seeking profit as he tries to maximise value (Barth 1966). To this end, all personal relationships and interactions will be transactional. In trying to maximise profits, the individual engages in multiple transactions and initiates new activities, making him innovative and profit seeking (Barth 1966). During the reconnaissance period, it was very easy to note that the diverse community of Lydiate is full of entrepreneurial individuals, with some migrants glued to their vegetable stalls and small tuck-shops, while others were selling fish and a variety of other products. Thus, it was evident that transactional theory would be instrumental in understanding the enterprising migrants who perhaps even had a land market in the community. Obviously, as Barth (1966) notes, profit-seeking individuals could face some barriers. However, they will try to manoeuvre their way through these by designing new transactions that will circumvent the barriers (Homans 1961).

Transnationalism theory has, however, been criticised for downplaying constraints on individualism, be they cultural, historical, or environmental (Hedican 1986). But for this study, and as shall be argued in the discussion section, there is a sense in which the theory has an advantage in guiding a study of this nature, particularly that of migrants in the peri-urban of a secondary city who are desperately in need of land.

5.3 Study Context: The Informal Settlement of Lydiate

This study was carried out in the informal settlement of Lydiate, a migrant community located in the peri-urban area of Norton, a secondary city in Zimbabwe. Secondary cities generally fall into one of three types: subnational urban centres, corridor secondary cities, and metropolitan cluster secondary cities. Norton town

falls under metropolitan clustered secondary cities, as it has developed on the periphery of the Harare metropolitan, the capital city of Zimbabwe, as a new and spillover growth centre. The area of study, the informal settlement of Lydiate, is a Malawian migrant ethnic enclave in Zimbabwe (Bhanye 2022a, b). The 'transnational' quality of Malawi to Zimbabwe migration can be traced back to the colonial period. Malawian descendants originally came to Zimbabwe as labour migrants during the colonial labour migration period from the 1890s to the 1970s (Daimon 2015). The Republic of Malawi came into existence only in 1963.

For the decade before that (1953–1963), Nyasaland was part of the Federation of Rhodesia and Nyasaland (or the Central African Federation, CAF), which consisted of Southern Rhodesia, Northern Rhodesia, and Nyasaland (now Zimbabwe, Zambia, and Malawi, respectively). This political geography coloured the life history of some Malawian diaspora who did not cross the border but instead crossed the border. As Terence Ranger (1985) wrote, Southern Africa's borders were created precisely to sift labour and strip migrants of rights. The Malawian diaspora in Zimbabwe became simultaneously estranged from both communities, the original home Malawi and Zimbabwe the destination, and therefore always in a state of conflicted emotions. This partly explains the tendency to cling to ethnic enclave groups in settlements such as Lydiate to salvage a measure of community belonging. The majority of the Malawian diaspora and their descendants have remained on the margins of social, economic, and political affairs in Zimbabwe. They have constantly been regarded as 'migrants' or the 'other' as expressed through labels, such as *Vatevera njanji* (those who followed the railway line on foot); *Vabvakure* (those who came from afar); *Mabwidi* (those without rural homes); and 'totem-less ones' (Daimon 2015). The crippling political economy of Zimbabwe has also perpetuated the continued marginalisation of Malawian migrants in Lydiate.

The informal Lydiate informal settlement is located in Mashonaland West Province of Zimbabwe, in Ward 14 under the Chegutu Rural District Council, and in the vicinity or peri-urban area of Norton town. Currently, Lydiate informal settlement comprises first-, second-, third-, and fourth-generation Malawians. Most of the first-generation Malawian migrants settled on Lydiate Farm directly from Malawi between the 1950s and 1970s. Other first-generation Lydiatians later came to Lydiate through the 1980s, coming from other farms and mining areas in Zimbabwe where they were working. The years when the second, third, and fourth generations were born in Zimbabwe vary from family to family in Lydiate. Figure 5.2 shows the area of study, Lydiate.

Life in the informal settlement is not easy. Lydiatians often face victimisation by local indigenes who perceive them as informals who should be removed to increase the value of recently developed agro-residential plots adjacent to the informal settlement. To adjust to the fear of evictions, Lydiatians tend to forego making long-term investments in improving their living arrangements, limiting themselves to the most rudimentary shelter (Bhanye and Dzingirai 2020a). Most housing structures in Lydiate are temporary to semi-permanent shacks made of pole and dagga, tin, and zinc roofing sheets, and some plastic and metal scrapes. Only recently, some middle-aged Lydiatians are building standard two-bedroom dwellings using farm bricks,

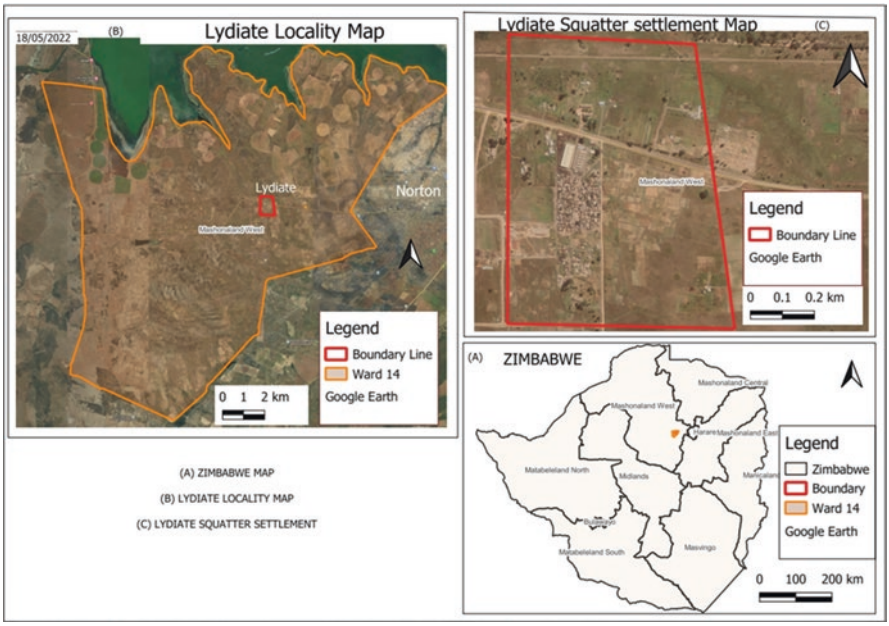

Fig. 5.2 Area of study. (Source: Authors)

cement for flooring, and iron sheets for roofing. In the community, basic infrastructure, such as running water, indoor plumbing, and paved roads, is virtually nonexistent, while electricity is only available to a few privileged households. As is the case in other informal African settlements, the general situation of income in Lydiate is poor. The casual and unskilled jobs that are the dominant in the area pay poor wages for Lydiatians.

Peri-urban petty farming production is not helpful since Lydiatians did not get land during the infamous Fast Track Land Reform Programme, dubbed the 'Third Chimurenga' that was implemented by the government of Zimbabwe in 2002, resulting in white colonial farmers losing land to local Zimbabweans (Scoones et al. 2010). Thus, the greater Lydiate area is made up of plots and agro-residential plots exclusively owned by indigenous Zimbabweans who occasionally engage Lydiatians for labour. Some of these properties, along with large-scale commercial farms in the immediate west, are vacant and often attract the attention of the migrants in the compound. In Lydiate, there is also a white man, Adam, who owns and operates a tobacco-processing plant located in the midst of the village. The plant used to operate from May to September and, at the height of activity, employed close to 500 migrants. However, the operations of the tobacco-grading shed have been down for several years, worsening the hopes of Lydiatians who had primarily depended on it for employment.

In terms of organisation, Lydiatians belong to kin groups. However, these kin groups are not locked into specific spaces; thus, it is common for members to be distributed throughout the settlement based on land availability. Elders in kinship groups remain important and occasionally meet to deliberate over matters affecting their members. There is a culture of reciprocity between members; people assist each other with basic needs and will attend each other's funerals or celebrations alike. Lydiatians also have internal differences based on the history of settlement. To begin with, there are *vauyi vakare* (long-term migrants) who are settled in the core of the settlement. These migrants have literally lost their Malawian identity, perpetuating their precariousness in Lydiate. Then, there are *vauyi vazvino* or recent migrants. These newer migrants settle on the periphery of the settlement in areas known as *kuma nyusitendi* (new stands). Currently, the informal settlement comprises first-, second-, third-, and fourth-generation Malawians. Most of the first-generation Malawian migrants settled on Lydiate Farm directly from Malawi between the 1950s and 1970s. Other first-generation Lydiatians later came to Lydiate through the 1980s, coming from other farms and mining areas in Zimbabwe where they were working. The years when the second, third, and fourth generations were born in Zimbabwe vary from family to family in Lydiate (Bhanye and Dzingirai 2020b).

In Lydiate, leadership in the community is clearly defined. Within the compound, selected leaders *maSabhuku* (village heads) maintain a register (*bhuku*) of the settlement. At the micro level, the compound is divided into five units, each represented by a *Sabhuku*, chosen by the community and officially appointed by the powerful chief Chivero. This is an interesting integration of migrants that they are also now taking leadership roles. The *maSabhuku* commands the respect of the migrants who regard them as instrumental in facilitating land access. Also active in the compound are *Vakuru-vakuru* (big men). These include *vakuru venzvimbo* (the councillor) representing the state; *vakuru vemusangano* (the local political party chairperson); and finally *mukuru wevechidiki* (the local youth chairman). It is common for these leaders to oscillate between Lydiate and the towns of Harare and Norton. These big men can change politics on the ground, including facilitating access and security over resources such as land.

Lydiatians are extremely religious. The community has various religions, but the dominant ones are Christianity and Islam. There is a mosque at the roadside and multiple churches whose shrines are dotted inside and outside the compound. There are blurred religious lines in Lydiate, as people can easily attend each other's religions, and visitors are similarly expected to do so. The researcher was invited to attend Islamic ceremonies while he was also expected to be part of what happened in the other local churches built by the roadside. Finally, the enchanting and dramatic Nyau cult has a voice and influence on settlement and related transactions (Bhanye 2022a, b). This cult organises dances and initiation rites for the youth. The much-subscribed Nyau ceremonies and dances take place on weekends, usually after church services. Like all other religious leaders, Nyau leadership is respected

among Lydiatians. Its leadership is presumed to have ritual powers capable of inflicting harm or bringing down illness on those who are insubordinate and go against its decisions.

5.4 Convivial Ethnography Among Lydiatians

This study draws on 3-year (2018–2021) doctoral research among Malawian migrants in Zimbabwe under the project 'Mobility and Sociality in Africa's Emerging Urban'. With the objective of decolonising African urban migration research, the initiative was a scholarly response to unprecedented levels of urbanisation and mobility driven by conflict, ambition, and respatialising economies. Data for the study were collected through convivial ethnographic methodologies, which enabled the researcher to gain a more detailed and extensive account of the transactional and supplementary strategies of migrants in accessing land. Ethnography involves direct and sustained social contact with research agents, paying attention to shared meanings and activities (Hammersley and Atkinson 2007).

The researchers implemented convivial ethnography in Lydiate through participant observations and task-based interviews. During participant observations, the researcher conducted transect walks within the settlement with the assistance of community members. The transect walks were unique and more convivial as the researcher had gained trust from community members through mutual interactions, participation in some of their chores, and religious activities, as expected from any long-term visitor. Through the convivial assistance of the community, the researcher managed to view the architecture of the community, the set-up of the settlement, physical structures, stand sizes, migrants' peri-urban production farming areas, and other livelihood activities. The directness of this approach, which often contrasts with other techniques, helped to complement information obtained by other techniques as it adds additional insights into how migrants try to establish themselves in rough peri-urban spaces.

During fieldwork, researchers also participated in various social spaces, including the community centre during community meetings, Nyau ceremonies, church gatherings, and the Lydiate shopping area, taking notes of the events as they occurred. On-site note taking took place in settings such as informal youth gatherings, where note taking was considered appropriate and normal. For example, when walking with an informant within the community and during church activities and Nyau ceremonies, it was impractical to write notes as the activities unfolded. Furthermore, as the researcher also experienced a few times during fieldwork, taking notes during certain field situations, such as casual conversations among strangers or 'on the go', can interrupt their 'natural' flow, or may even offend the research participant by showing that the researcher's attention lies elsewhere. Another aspect of fieldwork that I considered during fieldwork was how sensitive doing research

had become, particularly in politicised environments like Lydiate. Most participants can never allow a researcher to voice record them, for example, fearing that you are an intelligence agent (CIO). In such circumstances, writing field notes required a great deal of remembering what was said and how it was said (including phrases used, themes discussed, mode and atmosphere, and setting). Once back at the desk, the researcher would type the field notes. This 'tidying up' always involved acts of writing down, editing, extending, and thus transforming the notes from the field.

Of the many migrants that I encountered in the community during the fieldwork, approximately 50 became my key informants. The community has approximately a total population of 1200 people. The 50 became sources of information on the migrants' various strategies in accessing land at Lydiate. The informants selected in this study were a diverse group of migrants that corresponded to the importance of range and heterogeneity in ethnographic (and generally qualitative) research. In this regard, the research group comprised men and women, the young, the middle-aged, the old, the widowed, the singled, and the married. The informants also comprised first-, second-, third-, and fourth-generation Malawians. I found these groups important for the interviewing as they are directly or indirectly linked to aspects of sense of place with respect to the Lydiate community.

Complementing the 50 key informant migrants in Lydiate were 9 individuals with whom the researcher conducted expert or ethnographic interviews due to their specialised knowledge of the Lydiate community. This included the five community leaders in Lydiate, the former Ward Councillor and the current Ward Councillor of Lydiate, and two civic activists, one of them having also once campaigned to be an independent Ward Councillor for Lydiate. These individuals had a great deal of knowledge of the roughness in the community and the various survival strategies that Lydiatians adopt. Information was available with these key informants after trust was guaranteed with the researcher through continuous mutual interactions, negotiations, and assurance that the study would be purely academic.

Additionally, the researcher purposively selected a few owners and caretakers of adjacent farms and agro-residential plots in the greater Lydiate area for interviews. These helped confirm the responses of migrants in the community on the different ways of accessing and securing land. These were especially important as their pieces of land are often targeted for use by landless Lydiatians. There were also several other people whom the researcher met rather fleetingly during the fieldwork whose informal interactions with the researcher broadened his understanding of various transactional processes in Lydiate. These are people whom the researcher met, for example, on his way to and from the Lydiate community while walking in the shopping area and during transect walks in the greater Lydiate area.

Doing research among undocumented migrants, like in the case of Lydiate, calls for a researcher to be very observant of research ethics. This is mostly because of the vulnerable position of the migrants, in particular, their unresolved citizenship status. This study collected data after obtaining informed consent from respondents. This means that participants were informed to participate voluntarily after receiving

complete information on what it means to participate and giving their consent before doing so. Migrants/respondents were also ensured their privacy and confidentiality during the research and in writing the findings through pseudonyms.

5.5 Transactional Strategies for Accessing Land Among Migrants

Lydiatians adopt various transactional strategies to access land, including land inheritance, purchase, and fictive kin-based rentals. They also partner with modern political patrons, traditional leaders, and investors in accessing and securing land. Figure 5.3 illustrates the transactional strategies adopted by migrants in the informal settlement of Lydiate in accessing land.

5.5.1 Land Inheritance

Inheritance is an important source of land for settlement among migrants in the informal settlement of Lydiate. The sources of inheritance are multiple and diverse in Lydiate. Land sources vary from parents, children, siblings, marital relations, and generations. Where parents are owners and sources of land, land is passed to their

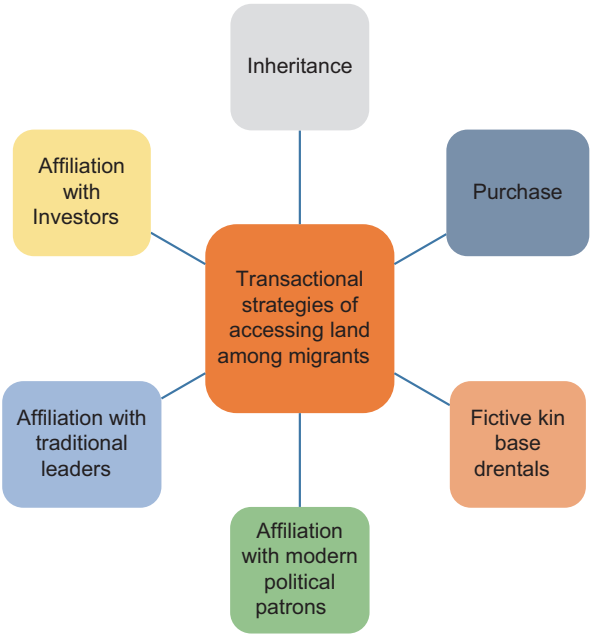

Fig. 5.3 Transactional strategies for accessing land among migrants. (Source: Authors)

direct descendants. Sometimes, children who inherit land are expected to move away from the parents' main house and construct their own dwellings on the inherited land. The sources of land are not always one's biological parents, as children can also get land from step-parents in the diverse community. It also seems that parents in Lydiate have not much difficulty passing land on to female children due to the flexible application of matriarchal and patriarchal inheritance practices in passing land in the community. The study also shows that parent-child connections in land access are not only linear, with children being the only beneficiaries of land. They are rather bidirectional with children also helping parents access land, especially through purchase. Children pass on land to their parents because they reciprocate the efforts made by their parents to raise them from childhood. This finding demonstrates a point often missed in the literature that children can also pass land and other forms of property to their living parents.

There are also instances where migrants inherit land from siblings, challenging the dominant discourses that only highlight inheritance as a transaction where a parent has to be the source of land. Marital relations are also sources of land in Lydiate. In some instances, wives obtained land from their deceased husbands. In other cases, the reverse was true, with husbands also inheriting land from their wives. Again, this is a matter that is not often recognised in literature where the concern is always to show man as the dominant source of land and other related forms of property. There were also cases where land was received through an in-law. Where this happens, both the father and mother-in-law can be land sources. In other instances, however, even a son-in-law can be a source of land. Generations are also sources of land in Lydiate, with grandparents occasionally helping grandchildren to get land. However, there are also cases where grandchildren help their grandparents to get land.

From the study, there is no agreement on at what point the land is inherited by the beneficiary. However, the study identified at least three different points at that land is inherited. In the first case, land is inherited at the point of or upon death of the holder. In another mode, the land is inherited at the point of sickness. Where inheritance precedes death, the objective is to incentivise the child to take care of parents, a practice that has undoubtedly worked over time. In the third and final case, inheritance was offered while the parents were in good health.

Those who gave land to people of choice knew that the potential for disputes was always there. For this reason, they took various steps to ensure that the transfer was final without contestation. In the first place, the holders could invite a community leader to preside over the transfer. This community leader could be a village head *sabhuku* or a councillor. Second, the migrants could invite a witness to observe the land transfer. The witness could be any person, but in the study, friends and close relatives were often invited. In the third case, migrants could invite family members to a meeting where the inheritance issue was discussed. People took many other ways to legitimise the inheritance of settlement land. However, the study focused on these three for illustrative purposes. It is important to note that it was only after these activities that land transfer was considered complete and people respected ownership.

5.5.2 Land Purchase

Not everyone can inherit the land in Lydiate. To begin with, some of the migrants do not have relatives or kin who can transfer land to them in any generational sense. This applies more to recent migrants, known in Lydiate as *vauyi vekuuyazvino.* Others may also not have the privilege of getting land allocation from community leaders or inheriting land from kin in the settlement. This applies mainly to those who have fallen out of favour with the leaders who allocate land. For those who do not inherit land and still require it for their own private use, there are still other options, in particular land purchase, which informants called *kubvisira nzvimbo mari or kutenga nzvimbo.* Such land is often bought using savings from what Lydiatians call *maricho*, casual labour. But land is also often bought using income from petty commodity trading. Those who purchase land quote various amounts of money paid for land that I found to be roughly of the same size. Furthermore, sometimes the cost of the property was for land only, the house only, or both the land and the house. The participants in this study felt that the land should be of the same value. From the observations from the study, what accounts for the difference in purchase amounts is the nature of the relationship between the two parties. Where the seller is related to the buyer, it is common to fix a lower price. But who are the sources of this land that is being purchased?

These are clearly multiple sources, but two sources appear to be dominant in this study. In the first case, a person could secure land from those migrating out of the settlement. As stated in the area of study (Lydiate community) section, people are rapidly moving in and out of the settlement in response to better opportunities elsewhere. Then, some have multiple lots. This source of land is common in Lydiate, especially when it is morally unacceptable to hold onto multiple properties within the community when others experience want and neglect, what Lydiatians call *kukwangwaya.* Land buyers in the community also rely heavily on family networks, friends, and neighbours to gain information about plots put up for sale.

For land purchase to be legitimate in the Lydiate compound, certain conditions must be met. First, there must be some credible witnesses. Some squatters invited their elderly relatives to witness the land transaction. Others invite their neighbours, who are especially esteemed in the community. The seller's behaviour plays a significant role in the conclusion of the land transaction. Often, it is only after the informal buyer has developed trust in the seller's behaviour and reliability that the negotiation process for the transaction will proceed. Second, where there are no witnesses, a written agreement is required. The agreement is not elaborate – just a scribbled note indicating who the seller is and who the buyer is. Although not adjudicated by formal legal processes, these informal practices certainly complete the transaction, meaning that sellers could not go back on the sale. Although there are cases where sellers sometimes move to recover their land, the usual practice in the study area is that sellers respect their word and signature. It is also the norm for the community to respect the land tenure arising from such sales.

5.5.3 Fictive Kin-Based Rentals

Lydiatians do not only access land for settlement through inheritance and purchase but also through fictive kin-based rentals. The rentals do not always follow the conventional rental system in the formal market where the tenants and landlord get into a written agreement, and a fixed monetary payment is often paid at the end of each month. In Lydiate, most rental agreements involve the care of land and homesteads in the absence of other migrants who are property owners. Lodgers emerge as security agents and stewards on behalf of absentee property owners. In other instances, tenants may pay rents in monetary terms. Those who pay rent in monetary terms are usually new migrants in the community, who often start by renting a homestead until they manage to strike a deal to acquire their own land and homestead. Rental agreements for settlement land in Lydiate are verbal, but remain binding. Lodgers can use land and/or homesteads for as long as they want and, in most cases, for as long as they are in good books with the property owners. Furthermore, a rental agreement could eventually turn into a purchase deal.

5.5.4 Affiliation with Modern Political Patrons

In Lydiate, some migrants use modern political patrons to hold onto land. Modern political patrons are politically active individuals who claim to have the power to change the politics on the ground, including facilitating land access and security. The authority of political patrons in Lydiate appears to override even formal institutions in guaranteeing security over land. This is due to their power base, which is derived from the political party of ZANU-PF. Some patrons that facilitate security over the land stay in the community, while others stay outside of the community. The powerful individuals who stay in the community include the ZANU-PF local youth leader, ZANU-PF Ward Chairman, ZANU-PF local Chairman, and the current Ward Councillor who oscillates between Lydiate and Norton town. Migrants also seek the support of actors outside of their community.

The patrons who stay outside the community include the contestants and current ward councillors, and the Member of Parliament, who all try to win the favour of Lydiatians by promising them long-term tenure on their squatter settlement. Similarly, modern political patrons in Lydiate help to protect migrants from evictions from the squatter settlement. This is because the collective tenure of the migrants is insecure as they are seen as a social nuisance by indigenous landowners who wish to see them removed from their settlement. Lydiatians are also threatened by local authority officials who, for reasons of urban aesthetics, also want the squatters evicted. However, often enough, the migrants remain defiant as they have the backing of modern political patrons. These political patrons in positions of authority sympathise with squatters and even champion their cause for seizing farming land. In the end, squatting becomes a seesaw game between squatters, local authority officials, and local indigenes. When Lydiatians are protected or given land

by politicians, the understanding is that they would throw their support to the supportive politicians.

Thus, where patrons and politicians are land sources, a deal is going on. Often, politicians require those they help to provide votes during elections. Lydiatians not only use modern political patrons to seek for protection of the squatter settlement as a collective; they also use political patronage to seek protection over individual land. This is usually done by consistently mobilising people for political rallies called by politicians and mobilising the community to shun the opposition and instead vote for the ruling party that supports them and other locals with land. This dynamic is also reflected in the traditional sphere. In other words, migrants also use traditional leaders to secure land.

5.5.5 Affiliation with Traditional Leaders

Traditional leaders referred to as *maSabhuku* also command respect among Lydiatians, who regard them as instrumental in facilitating security over land. To get land and continued use of the land, Lydiatians ensured that they appeased traditional leaders in various ways possible. In the first instance, migrants can take advantage of having been born and raised in the community to secure land. Traditional leaders also consider one's conduct with other community members as a condition for security over land. Thus, those maturing up in the community try to have an excellent reputation for being allocated land. In the second instance, Lydiatians can befriend traditional leaders to secure land for farming and settlement.

Third and finally, though it seems as if people get land from traditional leaders with no direct payment, it is a norm for the majority of beneficiaries to give traditional leaders gifts, such as chickens, maize, or cash, to perpetuate their stay on the allocated land. Traditional leaders also facilitate land security through their instrumental role in the resolution of land conflicts between migrants. Some migrants try to prevent future disputes and the potential loss of their land by involving a traditional leader at the point of acquisition of land. Even where land is self-allocated, it is normal for people to eventually approach the traditional leader to register a deed, which is often done by word of mouth. In these instances, migrants seek legitimacy through traditional leaders because they do not have the legal grounds to register a formal deed or the rights to claim the land dispossessed through a formal litigation system.

5.5.6 Investors as a Source of Land

Other migrants in Lydiate have a tenure linked to investors. There is a white man, Adam, who used to operate a tobacco-processing plant in the middle of the settlement. The plant was first operated by a white man George who established it in

the 1950s, and Adam bought it later in 1997. The plant was operated from May to September and at the peak of activity employed close to 500 migrants. Some of the migrants who used to provide labour in tobacco grading were allocated land close to the grading shed for settlement by the white man. The initial beneficiaries of this structure were first-generation Malawian migrants who came to Zimbabwe during the colonial labour migration period, called the *chibharo*. These had managed to keep their settlement land by consistently staying on the stands and providing farm labour in the tobacco-grading shed during the good old days when it was still operational. Even now, when the tobacco-grading centre is barely functional, having a history of parents or grandparents who once offered labour in the tobacco-grading shed facilitates migrants' access to land for settlement.

5.6 Supplementary Strategies for Accessing Land

Migrants do not always adopt transactional strategies to access and secure land. When transactional strategies do not produce land, migrants adopt supplementary strategies. These supplementary strategies are associated with illegality, illicitness, and risk. It is important to note that these are often measures of last resort, as migrants will have run out of normal/formal ways to yield resources like land. Figure 5.4 illustrates the additional strategies adopted by migrants in Lydiate to access and secure land for settlement and production.

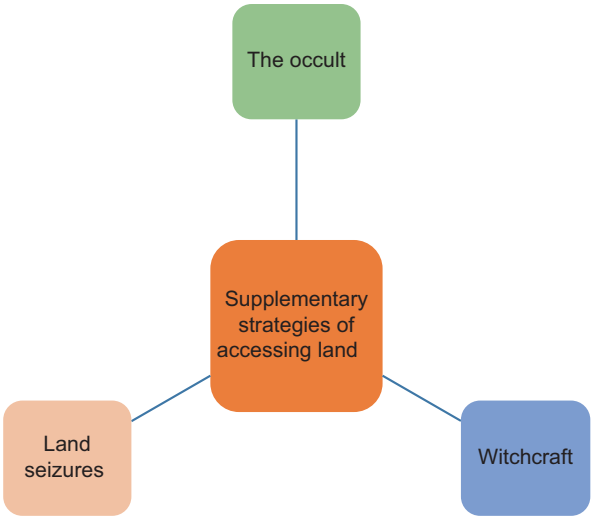

Fig. 5.4 Supplementary strategies adopted by migrants to access and secure land. (Source: Authors)

5.6.1 The Occult as a Source of Land

The occult plays a significant role in facilitating access and security over land among Lydiatians. This means that it facilitates migrants getting land, sometimes at the expense of indigenes. Often, this is done by frightening indigenes to release part of their land for use or settlement by the Lydiatians (Bhanye 2023). They do so by targeting caretakers or managers of the plots and farms that surround the compound. Usually, the Nyau cult chooses public places where they present their almost supernatural dances and haunting, high-tempo drum rhythms. Occasionally, they move around from the cemetery making ghostly noises and go to areas that are occupied by indigenes. Especially when performed at night, these processions are scary to the caretakers and owners of the nearby plots. Therefore, indigenous people are constantly reminded of the power of the occult. When cult members need land, either individually or collectively, it is easier for them to get it because of this fear they put on the indigenes. The cult is instrumental in generating land for settlement and livelihood for the Lydiatians. In fact, this function of the cult is so important that many young people join the cult precisely to secure land in cases where they are landless. That membership of a cult is designed to secure land is seen in the fact that once a member of the cult becomes older and has secured physical settlement space in the community, he/she often moves out of the cult.

The cult does not only facilitate migrants to secure individual land; it also assists migrants to collectively secure their settlement. As noted above, Lydiate migrants are threatened by indigenes. These indigenes want to monopolise the land that the migrants currently occupy. Indeed, it is no secret that indigenes perceive migrants as squatters who should be removed to increase the value of recently developed agro-residential plots in the area. It is against this background that the cult is invoked (Bhanye 2023). Cult members define the core Lydiate as a no-go area for other groups except Malawian migrants. This territorial marking mobility is frequently done during the weekend through a dramatic procession organised around deathly practices. The cult members walk around dressed in phantom costumes of cloth and animal skin, presenting themselves as dead men walking. Without fail, they transform into masked white giants, standing or moving around on stilts that dwarf the average human being. In their territorial marking, they continually mimic gestures of violence and threaten to beat up locals who come near Lydiate and its compound. The sophisticated, mysterious, and scary customs are not targeted at fellow people inside the community but rather at the indigenous outsiders who are seen as potentially dangerous and who want to take their land. Needless to say, locals will not question the tenure of Lydiatians for fear of this occultic custom.

However, the occult has its own limitations. For example, it is not always effective to everyone ascribing to it. There are cases where migrants were stripped of their land, regardless of being members of cults (Bhanye 2023). This is because modern religion, particularly Pentecostalism, now seems preferable than traditional practices like the cult that by nature is associated with secrecy and the instilling of fear among non-members. Therefore, it was not surprising that some members of

the cult had dual membership, belonging to the cult and attending modern churches at the same time. Attending modern churches generated social capital that facilitated land security without controversy compared to the occult. Some migrants, for example, had their tenure easily secured by traditional leaders who attended modern churches together with them.

5.6.2 Witchcraft as a Source of Land

Lydiatians also make use of witchcraft to secure their land. While the Nyau cult is used to secure land against external threats, witchcraft is often used to protect land against fellow migrants (Bhanye 2023). In the Lydiate community, rumours of witchcraft were common, especially in relation to resource access. Some migrants openly said that the settlement of squatters is full of trenchant human evil and phantasmic forces of unprecedented power and danger. This power and danger are often targeted against fellow migrants to enforce land ownership. Land enforcement is done by threatening fellow migrants in the community with harm (Bhanye 2023). Owing to this fear of unprecedented danger, people in the community do not easily encroach on land that is not theirs as they fear unknown fatal consequences. Some community members were very open that other people in the community could hurt opponents with witchcraft if they dared take their land (Bhanye 2023). There are growing fears, especially among younger generation migrants in the community, that first-generation Malawians can cast spells of misfortune and, in extreme cases, turn others into zombies if they encroach onto their space. The weak are left with little recourse but to protect or shield themselves by retreating. Some would even opt to lose their land to such people (Bhanye 2023). However, not everyone responded to these threats of witchcraft by retreating. In other instances, those threatened also dared to fight supernaturally, while others referred the land dispute to community leaders.

5.6.3 Land Seizures as a Source of Land

Regarding land for peri-urban petty farming production, unilateral seizures by migrants, or what is commonly referred to as adverse possession, prescription, or self-allocation is a key mode of access in Lydiate. Most Lydiatians justify seizing land for farming because they do not have any other alternative. Some of the migrants in Lydiate believed that self-allocation of land did not require any interference from the formal and informal institutions that govern land acquisitions. Most of the squatters pointed out that the land they self-allocated is common property, although others believed strongly that it was God's land. The land that people self-allocate is on the periphery of the compound. Some of this land includes what

the informants called *kuma wavhetereni* (disused war veteran farms). This land also includes existing private plots located close to the settlement and is rather bizarre. Other squatters also openly target private land adjacent to their residence. However, the rights to the stolen piece of land are only valid if the landlord does not show up. If the landlord comes, the self-allocator has to make another plan that sometimes includes targeting yet another underutilised piece of land. Thus, most people end up targeting the commons, which they popularly call *kunjanji*, land that forms a buffer for the road and railway line.

For land seizures to be completed, certain conditions must be met. On the Lydiate Farm, the long stay in the community gave migrants the opportunity to know which land was vacant for farming in the community. But self-allocation did not guarantee the security of tenure. What eventually made one's choice of land secure was the consistency of use. The uncertainty about the ownership or use of particular lands is important in the settlement. People try to deal with this risk in many ways. Some people identified land in various places to reduce risk. Other migrants had two plots, one in the nearby war veteran farms and another one by the railway line. Thus, it is clear that many people protected themselves from what they regarded as external expropriation. However, threats are not limited to external actors. It is common for settlers to claim land used or owned by others. To prevent this kind of dispute, it is usual for settlers to involve traditional leaders in seeking to have some formalisation of the land transfer or ownership or in handling disputes over the land. Even where the land was self-allocated, it was normal for people to eventually approach the village head to register a deed. Therefore, the village heads or *masabhuku* play a crucial role in ensuring orderly and fair land access and offering temporal legitimacy.

5.7 Discussion

The study findings presented demonstrate that transactions and reciprocity play a critical role in facilitating land among marginalised migrants in secondary cities. This section discusses the extent to which the transactional theory tenets that guide this generally hold in light of the study findings. The study agrees with the first theoretical argument that the environments in which people live are risky. In this study, Lydiate community, which lies in the periphery of Norton secondary city, face a myriad of hostilities including social, cultural, political, economic, and environmental (Ritzer and Stepnisky 2014). Just as Nyamwanza and Dzingirai (2019) referred to these communities as rough neighbourhoods with individuals/residents facing illegitimacy, Lydiatians, by virtue of their migrant status, have an unresolved citizenship status that places them in the margins of Zimbabwe's social, economic, and political spheres of life.

Transactionalists contend that many individuals/communities are often located in landscapes of scarce resources (Barth 1953, 1966, 1969; Leach 1964; Mills 1956). In Lydiate, multiple groups/interests are ranging from the host indigenes

with a strong patrimonial claim over land allocated during the Fast Track Land Reform Programme and some who bought private agro-residential properties, local authorities, the state, and migrants themselves who are all eyeing the same resource. Due to land scarcity, there are tensions over patrimony, with Lydiatians facing eviction threats. The Lydiate community is also risky for migrants because the state has its hand in local-level processes, including land allocation. Bailey (1973) and Cheater (1984) argue that community and individual activities almost always occur in state contexts. Bailey (1969: 149) referred to this process as 'encapsulation', wherein local intuitions are embedded in the state or linked to the state with its own agenda. In Lydiate, state presence was visible in the form of councillors, state agents, and local leadership who all appeared to have a voice in allocating resources, including sidelining those who do not support their agendas. Due to this hostility, migrants had to adopt innovative strategies to establish themselves in the peri-urban area.

From the second theoretical tenet, transactionalists hold that individuals use strategies or, as Bailey (1969) calls them, 'stratagems' when blocked from securing resources that ensure their survival (Leach 1964; Mauss 1970; Dzingirai 1999, 2008). The use of strategies implies that the social and physical environment does not limit the number of individuals living there (Firth 1955; Barth 1956; Lewis 1970). The study has revealed that migrants are not limited by land scarcity and threatening indigenes, the state, and a rough peri-urban space. This study has demonstrated that migrants are innovators who devise strategies for acquiring land for settlement including inheritance, purchase, and fictive kin-based rentals, drawing on various normative orders including state law, rules of market exchange, and customary practices. This is what transactionalists mean when they state that individuals can deliberately misinterpret rules (Bhanye and Dzingirai 2020a; Bhanye 2022a, b) or bypass agreed social rules (Dzingirai 2008) to ensure that their interests are met. In this study, some of the supplementary land access strategies, such as land seizures, involved a lot of 'risk taking' (Bhanye 2022a, b). In Lydiate, migrants also resort to political structures that include allegiance to ruling political parties and traditional leaders to hold onto land for settlement and small-scale agriculture production. Other migrants remained rooted through connections with investors who gave them the land in the first place. Bizarrely, other migrants resort to religious and ritual-based forms of authority like the occult which are feared and respected by adherents on account of association with deathly symbols.

The third theoretical component that guided this study was that the strategies that people devise are competitive all the time (Bailey 1969; Klare 2002). This was partly true in Lydiate as migrants use plots, schemes, and manipulations to ensure that they achieve their primary goal of acquiring land and surviving even at the expense of fellow migrants or the indigenes. Through land seizures, for example, migrants competed against each other to occupy idle spaces and, at the same time, competed against indigenes who had the original patrimonial claim over the space. Some of the structures and networks that migrants use in securing land against external expropriation, like modern political leaders and the occult, proved to be

competitive against the indigenes who regard Lydiatians as squatters who should be evicted as a way of increasing the values of their agro-residential properties. It is out of this tension that migrants sometimes invoke the eccentric and feared Nyau cult to protect their territory and, in some instances, affiliate with politicians.

Competition for scarce land is not only between indigenous peoples but also among fellow migrants. This often results in some threatening fellow migrants with witchcraft. In this study, migrants also used narratives to outmanoeuvre competitors. Most of the squatters pointed out that the land they self-allocated is common property, while others emphasised that it was God's land. According to transactionalists, individuals and groups in competition for resources will use narratives (Bailey 1983) to justify their claims to resources or to protect their interests. This was demonstrated in later works of Bailey (1983) when he draws attention to 'tactical uses of passion', a process where individuals 'cope by falsifying experience' (Bailey 1983: 13) or by using narratives to justify claims to resources. In Lydiate, some migrants also presented their fellow migrant opponents as evil, threats, or constituting a danger to society through the use of witchcraft. Although the use of witchcraft was real in the community, in some cases, the accusations were motivated by competition over land and resources.

The study is also consistent with the fourth tenet of transactional theory that strategies that people use generate resources and/or the achievement of personal interests (Barth 1981; Homans 1961). In this study, migrants managed to yield land for settlement and petty farming production that is scarce in the community through purchase, fictive kin-based rentals, inheritance, and land seizures. Migrants did not only manage to accumulate land but also secure it through diverse networks and paralegal structures such as modern political leaders, traditional leaders, investors, the occult, and witchcraft. In the words of Barth (1981: 2), individuals are 'goal pursuing', driven by their own interests that result in survival materially or otherwise (Homans 1961). Transactionalists also hold that individuals are motivated by seeking profit and maximising value (Cheater 1984). In Lydiate, migrants also proved to be entrepreneurs by transacting land with fellow migrants and with indigenes.

5.8 Conclusions

The study revealed that left on their own, marginalised migrants in secondary cities resort to plural strategies to access land. These strategies are often in the form of transactions as postulated by the transnationalism theory that guided this study or other bizarre supplementary strategies like the occult and witchcraft. Thus, informal settlements on the peripheries of secondary cities emerge as 'hyperactive' spaces with novel forms of authority that regulate access and security over resources for urban settlement and production. It, too, emerges as a zone of conviviality, where people deploy time and affection in generating resources necessary for their

reproduction in contested spaces that they too eye for a home of sorts (Bhanye 2022a, b; Bhanye et al. 2021). These insights are consistent with transactional theory in social anthropology, which argues that individuals are not limited by hostile or risky environments. They create shortcuts, bypass agreed social rules, and find strategies to secure resources and achieve long-term interests. However, against transactional theory, it is not always the case that people develop competitive strategies to advance their interests.

A modest finding in this study is that people sometimes enter into conviviality and other cooperation mechanisms within themselves and between themselves to secure their interests and belonging. This is what has been observed by other scholars like Nyamnjoh and Brudvig (2014) that migrants can engage in relations of convenience, what they referred to as conviviality and negotiations in urban Africa. In Lydiate, some migrants resort to mutual fictive kin-based relationships to acquire land. Migrants also entered into mutual deals with political patrons, traditional leaders, investors, and indigenes to find homes for themselves in the hostile peri-urban. Thus, it is not always the case that individuals are rebels and deviant manipulators with an eye only for their advantage. It must also be noted quickly that the use of extreme measures of survival, like land seizures, and the occult in acquiring resources, is often a measure of last resort by migrants because they would have run out of normal options to deal with their circumstances.

In light of the findings, the study recommends that responsible authorities formulate policies and arrangements to ensure that marginalised migrants have formal access to land in rapidly growing secondary cities. For now, migrants are only left to depend on strategies and informal forms of authority, sometimes at a great cost to them. The policies should also acknowledge and address the unique dynamics of informal settlements, recognising the role they play in resource generation and fostering conviviality among residents. By adopting a comprehensive approach that combines transactional and supplementary strategies, authorities can work towards inclusive urban development, providing secure land tenure and equitable access to resources for all residents, especially those on the margins. Such efforts are crucial for promoting social justice, reducing inequalities, and fostering sustainable urban growth in secondary cities across Africa and beyond.

In conclusion, this chapter has shed light on the complex processes surrounding land access among migrants in secondary cities. It highlighted the diverse strategies employed by marginalised individuals, ranging from transactional approaches to supplementary measures. Moreover, it emphasised the significance of informal settlements as active spaces, showcasing novel forms of authority and conviviality. By understanding these dynamics, policymakers and stakeholders can work towards more inclusive and equitable urban development, ensuring that marginalised migrants have formal access to land in fast-growing secondary cities. This study has briefly touched on how migrants resort to conviviality and cooperation to achieve short-term and long-term interests. Future studies should document in clear and uncertain terms the extent to which convivial arrangements achieve long-term concerns for migrants in secondary cities.

Based on the findings and conclusions of the ethnographic study conducted among Malawian migrants in Lydiate informal settlement, Zimbabwe, the following comprehensive recommendations can be considered:

- *Formalise Land Tenure*: Responsible authorities should prioritise the formalisation of land tenure in informal settlements. This can be achieved through the implementation of appropriate policies and legal frameworks that recognise the rights of marginalised migrants to access land for housing and urban production. Formalising land tenure will provide security of tenure, reduce the risk of eviction, and enable migrants to invest in their homes and livelihoods.
- *Enhance Participatory Approaches*: Engage marginalised migrants and the wider community in decision-making processes related to land access and urban development. Adopt participatory approaches that involve community members, local leaders, and stakeholders in the planning, implementation, and evaluation of policies and interventions. This will ensure that the voices and perspectives of marginalised migrants are heard, and their specific needs and aspirations are taken into account.
- *Strengthen Collaboration and Cooperation*: Facilitate collaboration and cooperation between marginalised migrants, local authorities, and other relevant stakeholders. Establish platforms for dialogue and engagement to build mutual understanding, trust, and partnerships. This collaborative approach will enable the development of inclusive strategies that address the complex challenges of land access in secondary cities.
- *Provide Supportive Services and Infrastructure*: Invest in basic services and infrastructure in informal settlements to improve living conditions and enhance the productivity of migrants. This includes provisions such as water supply, sanitation facilities, electricity, roads, and social amenities. Access to essential services will contribute to the overall well-being of migrants and promote sustainable urban development.
- *Strengthen Capacity Building*: Offer training and capacity-building programmes for marginalised migrants, local leaders, and community-based organisations. This should focus on empowering individuals and communities with skills in negotiation, advocacy, and project management. By equipping them with the necessary knowledge and tools, they can better navigate the complexities of land access and engage in effective resource mobilisation and utilisation.
- *Foster Collaborative Governance*: Promote collaborative governance models that involve multiple stakeholders in decision-making processes related to land access and urban development. This includes engaging traditional leaders, local authorities, civil society organisations, and private sector actors. Collaborative governance will facilitate the coordination of efforts, enhance transparency, and ensure accountability in addressing the challenges faced by marginalised migrants.

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Chapter 6
Public Land Management, Corruption, and the Quest for Sustainable Secondary Cities in Zimbabwe

Charles Chavunduka and Tsungirayi Diana Tsikira

Abstract Following peri-urban land reform, the state owns significant land in secondary cities of Zimbabwe. Public land ownership raises governance issues because the power to allocate public land is of great economic and political importance and has become a focus of corrupt practices. Public land management is an issue because it is dominated by a top-down process that encourages favours to special interests and promotes polarisation to obtain such favours. This chapter examines a variety of opaque and corrupt practices in public land management that privilege favoured entities. A case study approach was used to gather data from publications, reports, and key informants. Based on content and thematic analysis, the chapter draws the main conclusions and policy advice on the goal-directed management and control of public land in secondary cities. It demonstrates how influential people have been using power structures to make money from public land management. The solution to the problems requires political will and the transfer of public land ownership to local authorities rather than individuals for sustainable and responsible management.

Keywords Public land management · Land corruption · Secondary cities · Sustainable development

6.1 Introduction

Sub-Saharan Africa is the fastest urbanising region in the world, with an annual urban population growth rate of 4.1%, compared to the world rate of 2% (Githira et al. 2020). Of the 55% of the world's population that is currently estimated to be urban, about 40% reside in secondary towns and cities. This trend is similar in sub-Saharan Africa, since, by 2015, 46.94% of the urban population in the subregion lived in towns and cities with less than 300,000 people. Much of the urban growth

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in the region has occurred in secondary cities. In Zimbabwe, there is an increase in secondary city urbanisation, as evident from the slowed or stagnant urbanisation in larger cities such as Harare and Bulawayo (Infrastructure and Cities for Economic Development 2017; Mbiba 2017; Moyo 2020). However, most research has focused on capital (or primary) cities and other places are routinely ignored. According to UN-Habitat (1991), secondary cities have a population between 100,000 and 500,000. Although secondary cities are the locus of urban growth in sub-Saharan Africa, many urban management and governance interventions have focused on primary cities. This has resulted in growing gaps in development between primary and secondary cities, creating socio-spatial inequalities and multiple deprivations (Githira et al. 2020). In many developing countries, secondary cities are not fully integrated into national urban systems that are essential for national growth and development (Roberts 2014).

Problems arising from rapid urbanisation have been aggravated by decades of declining economic performance, political instability, and institutional decay in most of sub-Saharan Africa governments (Fekade 2000). The subregion is characterised by the lack of consistent national policies for planning and managing the present and significant process of urbanisation (UN-Habitat 2009; Turok 2012). In addition, the highly centralised and top-down urban management has limited efforts to introduce mechanisms for good governance in the land sector. In the context of these structural issues, the need for effective public land management is obvious in the region, not least because land resources are becoming more scarce with increasing population pressure (Larsson 1997). Most sub-Saharan African countries, including Zimbabwe, have resource constraints and weak official institutions which experience immense difficulties in land management, as it often assumes contentious economic and political dimensions. These challenges of weak state, partisan politics, and resource allocation, especially land politics and governance that have been observed in the capital city of Zimbabwe Harare, are also a characteristic feature of secondary towns and cities of the country (Mbiba 2017; McGregor and Chatiza 2020; Potts 2009, 2010, 2012).

Much of the urban land management literature in Zimbabwe has focused on Harare and peri-urban areas looking at land markets, land corruption, partisan politics, and gender (Bhatasara 2021; Chavunduka 2018; Chiweshe 2021; Marongwe et al. 2011). However, the overlooked secondary cities have a key role in supporting sub-national growth and development that will have a great influence on national development in the future. Most of the land that is under development in secondary cities is under public ownership, yet little research has been done to understand and strengthen public land management in these cities.

While interrogating the issue of urban public land management, the chapter addresses two questions: (1) 'What are the rules and regulations for urban public land management in Zimbabwe?' (2) 'How can Zimbabwe manage its urban public land in ways that enable sustainable urbanisation?' The chapter is organised as follows: the literature review discusses urban public land management and corruption in the context of polarised party politics. In this section, a land management framework is presented. Next, the methodology section shows and justifies the data

collection methods. The results are then presented in relation to the adopted land management conceptual framework. A discussion is presented on the themes emerging from the results and literature regarding urban public land management, corruption, and sustainable secondary cities in Zimbabwe. The chapter outlines the implications of the findings for urban policy and practice.

6.2 Conceptual Framework

There are various perspectives on land management. Some writings on land management have emphasised stewardship for both present and future generations when it is defined as 'the process by which the resources of land are put to good effect' (Dale and McLaughlin 1988, p. 4). In this view, land management processes include resource allocation over space and time according to the needs, aspirations, and desires of a people within a political, social, legal, technological, and administrative framework. Other scholars have described 'land management as a combination of interventions in governance, law, socio-spatial relationships, economic opportunities, perceptions, and behaviour' (De Vries et al. 2021, p. 4). They further qualify it as responsible regarding the extent to which it exhibits shared norms, a multi-stakeholder focus and people take responsibility for their actions; and smart where smartness relates to the combination of smart technologies and smart cities. This chapter is guided by the land management paradigm of Enemark et al. (2005) (Fig. 6.1).

Land management encompasses all activities to do with land policies, land information infrastructures, and land administration functions supporting sustainable development (Enemark 2007). It is 'the process by which the resources of land are

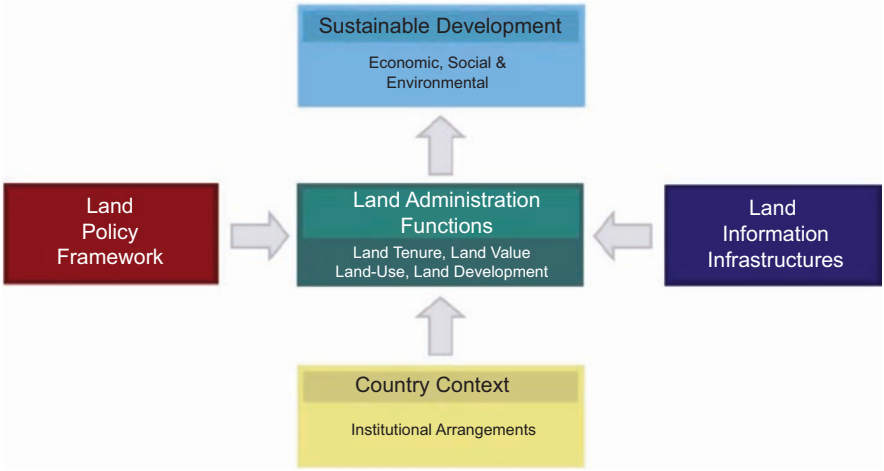

Fig. 6.1 The land management paradigm. (Source: Enemark et al. 2005)

put to good effect' (UN-ECE 1996, p. 13). Figure 6.1 shows all activities associated with land management and that are required for the achievement of sustainable development. The concept of land encompasses the total natural and human-made environment.

The institutional arrangements for land management differ widely amongst countries depending on historical, cultural, and ideological settings. For example, land use management in South Africa seeks to address historical inequality between the areas set aside under apartheid for white and black occupation and wide disparities in the provision of infrastructure and services (Republic of South Africa 2013). The same applies for Namibia, where urban land policy focuses on equitable access to land (including housing) and a path out of climate vulnerability (Chigbu 2021). However, inequality in access to urban land remains a major problem in sub-Saharan Africa secondary cities. Institutional arrangements for land management may change over time to better support the implementation of land policies and good governance. Land policy aims at improving the land sector contribution to national economic growth, social cohesion, and environmental sustainability based on responsible governance of tenure. Land policies have broad objectives of promoting equal and non-discriminatory access and tenure security for all citizens, economic and environmental land use efficiency, and integration of good governance in all land decision-making processes in the country.

The operational component of land management is the range of land administration functions that secure tenure and create value in land. These functions include land tenure security, regulated spatial planning, surveying, recording and registration services, provision of guidelines on land valuation, compensation and taxation, land development (implementing infrastructure, utilities, and land restoration), and land information infrastructure. Land information infrastructure supports economic development, environmental management, and social stability in the country.

Sound land management occurs when land policies are implemented in comprehensive and sustainable ways. However, in many countries, poor administrative and management procedures thwart sound land management. There is an undue focus on land use without clarifying tenure rights. Land has not been treated holistically with an effective institutional mechanism to link planning and land use control with land values and the operation of the land market (Enemark 2007).

Secondary cities face immense land management challenges because of weak urban planning, inadequate land tenure, and poor economic means by urban authorities. For example, in Kenya, 90% of the population of Kilifi town live in informal areas where tenure is poorly defined (Githira et al. 2020). Spatial planning has reflected little understanding of the dynamics of poverty and the peculiar nature of urbanisation in secondary cities of developing countries. Secondary cities depend on central government for funds to address local problems in a top-down approach where their power for revenue mobilisation is severely limited.

6.3 Literature Review

There is no doubt that, when done properly, public urban land management can lay the foundations for inclusive, prosperous, just, and green cities (Zinnbauer 2017). Land is in public ownership where the state or local authorities hold it through freehold or leasehold for the benefit of the community or some section of the community as distinct from specific individuals (Kivell and McKay 1988; Zimmermann 2007). Public land ownership has ideological principles, pitting those committed to private property against those in support of state ownership, with the former believing that public land is about power relations (Zimmermann 2007). Consequently, decisions about public land use are considered power-related rather than technical.

Public land ownership has traditionally been justified for the common good or the public interest (Kivell and McKay 1988; Deininger et al. 2012). Many advantages have been proposed for public land ownership in urban development. These have been summarised into three main arguments: 'planning efficiency, fiscal and social equity and the provision of services' (Kivell and McKay 1988, p. 167). The argument for planning efficiency suggests that the ownership of land by the government or local authorities promotes coordinated and desirable urban development. It eliminates delays in the land use regulatory system. It can ensure the reservation of land for infrastructure and public facilities such as schools, hospitals, defence or state enterprises, and a favourable purchase price. Local authorities will have better information about their long-term land requirements than the market.

Second, it is argued that public ownership redistributes wealth, reduces inequality between landowners who do (or do not) receive planning permission, and ensures overall financial benefit to the community. Third, it allows local authorities and other public bodies to effectively provide community services such as houses, schools, hospitals, roads, water, and sewage disposal.

At the same time, there have been several views against public land ownership that include bureaucratic inefficiency, private rights, and land values (Kivell and McKay 1988; Deininger et al. 2012). The argument of bureaucratic inefficiency questions the ability of government agencies to effectively manage land. Those ideologically committed to private property (e.g. Deininger 2003) see public land ownership as a threat to private property rights and freedom. The third argument against public ownership is that it restricts the market determination of fair land prices.

Perhaps, the main criticism of public land ownership is based on power relations (Zimmermann 2007). This view is centred on the social, political, and economic significance of public land. It raises concerns given that public land accounts for a large proportion of public wealth of both developing and developed countries. In this view, 'the power to allocate public land is of great economic and political importance in most countries and is a common focus of corrupt practices' (Zimmermann 2007, p. 31). Public land management is seen as flawed and contentious because it tends to be dominated by a top-down process that encourages favours to special interests and promotes polarisation to obtain such favours. As a

result, public land rights are often transferred through opaque rule of power processes. The critique questions how public land is acquired and disposed of, noting that it can be a source of extraction (Zimmermann 2007). Extractive institutions allow the elite to rule over and exploit others, extracting wealth from those excluded from the elite. Zimmermann points out the corruption associated with public ownership, but graft and corruption are associated with private property. State employees can misuse their power to enforce private property rights, as when a public sector employee assigned to enforce a contract sides unfairly with one of the entrepreneurs (Acemoglu and Verdier 1998). In Africa, colonial administrations introduced private property ownership. 'The peoples' bid to acquire the same explains the corruption which takes place in the private and in the public sectors of applicable countries' (Olayinka 2021, p. 28).

Public land has become an issue due to the trend towards public sector reform and the delegation of decision-making over the land asset to local authorities. Good public land management means establishing a sound policy regarding how government should intervene in land matters (Larsson 1997; Fekade 2000). Zimbabwe's opposition-controlled secondary cities have witnessed a disregard by the central government for regulations, master, and local plans; thus, urban planning has not improved the livelihoods of people (Marongwe 2003; Marongwe et al. 2011). An urban land policy should provide a framework for clear rules and regulations for public land management with goals and actions for their implementation (Larsson 1997). Public goals include effects on the environment, neighbours, and the long-term good, which cannot be secured by relying on private efforts. The overall goal of urban policy is to guide and control the orderly and desirable development of towns and cities and their efficient functioning (Fekade 2000). Policy goals should conceptually address ecological, social, economic, and cultural issues while programmatically contributing to poverty and inequality reduction, good governance, and transparent fiscal management of the land sector (Larsson 1997). The limitations of top-down land management require policy to recognise the potential offered by regularised grassroots land management.

Public land management involves many actors, all of whom have different roles. The system can function well only when roles and responsibilities are respected. To achieve this, there is a need for clear and well-streamlined organisational structures for land management (Enemark 2007). Public land policy should be regulated and controlled at the central and local levels. The central government must provide oversight through laws and by stressing policy goals, but detailed management is best performed by local authorities or at even lower levels (Larsson 1997). 'The basic regulatory framework on public property should focus on fundamentals to limit discretion and, thus abuses' (Zimmermann 2007, p. 35).

In an analysis of urban land as a new type of resource curse, Zinnbauer (2017) identifies problems of weak governance, opaqueness, and endemic corruption in public land management sectors of developing countries. The analysis mentioned that, based on a recent online poll in India, 88% of the respondents indicated that

it is impossible to register land without paying bribes. A study on corruption at the local level in Spain found that 88% of all cases between 2000 and 2008 were related to land issues and spatial planning (Darias et al. 2012). 'Corruption in the land sector is the abuse of power and authority by those in charge of land administration for their own gain or benefit' (Mutondoro and Ncube 2013, p. 12). It is the misappropriation of public resources (funds, assets, or opportunities) by agents who are trusted to take care of them (Rose-Ackerman and Soreide 2011). It has generally been found to detrimentally affect growth and investment (Pierre-Guillaume and Khalid 2005). Corruption causes more harm in poorly governed countries. Thus, weak rule of law, inefficient government, and political instability tend to worsen the negative impact of corruption on growth and investment. For example, Liberia, Angola, Mauritania, Burundi, Zimbabwe, and Mozambique have desultory governance and pay a large share of their GDP for it (World Bank 2013).

Corrupt public officials can maximise their benefits by supporting short-term growth at the expense of investments that pay off in the long term. The incompetence of public officials could be the result of deep-seated corruption. The ideal practice is to set up mechanisms to monitor and discipline officials. 'Highly corrupt countries tend to have poorly operating courts, high levels of organised crime, and weak financial intelligence and auditing capacities, as well as poor international cooperation in law enforcement' (Rose-Ackerman and Soreide 2011, p. xxvii). Such countries create corrupt incentives through underlying pathologies like monopoly power, lack of transparency and accountability in the conduct of government business, and an opaque and confusing regulatory structure.

Critics of public land ownership have based some of their arguments on its propensity to be mismanaged. Some of the challenges with public land arise because it may not be clearly identified on the ground. 'Effective public land management is virtually impossible if there is no inventory of such land or if its boundaries are ambiguously defined' (Deininger et al. 2012, p. 33). The absence of such an inventory has created opportunities for well-connected individuals to occupy public land, often with negative environmental impacts. Many developing countries do not have up-to-date and reliable data on where and how much public land they own and what rights are attached to it. Existing public land information is often located in fragmented and complex institutional environments that make it difficult to collate for planning and decision-making, given that some of it may be incomplete, inconsistent, and outdated. These observations have been made for Zimbabwe's secondary cities where public land increases in value and has become a commodity for sale by various actors such as development speculators, cooperatives, officials, politicians, and the public (Chakwizira 2021; Marongwe et al. 2011). In the post-2000 period, overlaps and conflicts amongst multiple institutions have constrained the smooth functioning of urban land markets. The government has been the main source of land for urban development. With most urban councils under the control of the main opposition political party, land has been politicised and there is limited public access to information on transactions.

6.4 Methodology

The study is mainly based on a literature review complemented by a case study of Chitungwiza and key informant interviews. The Chitungwiza case study was used because it represents a universe of corruption in urban Zimbabwe public land management. Chitungwiza is an extreme case and was chosen because of its potential to expand earlier understandings about the nexus between political economy and corruption in public land management. It takes political-economy understandings of land management beyond patron-client relations and is thus of interest to the sharpening and refinement of theory (Ragin and Becker 1992).

Five key informants provided evidence on public land management in secondary cities of Zimbabwe. Key informants are people whose position or previous experience gives them particularly valuable information on a given topic. 'If the basis is position, the key informant becomes in effect a surrogate observer for the investigator. On the other hand, if the basis is experience, the informant provides the investigator with a chance to view information from other sources in historical perspective – in effect a longitudinal – "time slice"' (Moris and Copestake 1993, p. 58). Key informant 1 is a senior planner in government, key informant 2 is a realtor, key informant 3 is a former director of planning, key informant 4 is a land developer, and key informant 5 is a director of housing and community services. Key questions posed to the five related to policy, structures, rules, and procedures for public land management; public land information systems; institutional issues; and sustainable urbanisation. Data analysis involved the identification of patterns in evidence drawn from the literature review, the Chitungwiza case study, and key informant interviews. The data were scrutinised for underlying themes and other patterns. The use of three data sources was designed to improve reliability and protect overall data quality.

6.5 Results

6.5.1 The Policy Framework

Without a clearly defined urban policy, urban land management in Zimbabwe is guided by sectoral policies such as land, housing, the environment, and public health. Given the predominance of residential development, the sectoral policy that significantly influences urban development is the National Housing Policy. The policy identifies urban land issues, such as the lack of policy coherence for rural-urban integration and bottlenecks in the land delivery process. The administrative processes for land acquisition for urban development are complicated and lengthy. To address bottlenecks in the land delivery process, the policy recommends streamlining of land management functions amongst Ministries responsible for lands, local government, and national housing on the one hand and local authorities on the

other (Government of Zimbabwe 2012). Additionally, the housing policy recommends providing an institutional framework for periodic land audits and providing information for transparent land administration and planning purposes.

Public land ownership has many benefits, providing affordable land for low-income housing and infrastructure (roads and utilities) and social services (schools, health facilities, police stations, recreational parks). Public land can be developed more comprehensively when owned by the government and local authorities. Privately owned land is more expensive and may not be easily assembled for urban development. When held by private developers, public land has been used for speculative purposes, and social service provision has tended to suffer, with people sometimes having to access them outside their residential neighbourhoods at greater cost. Without public land, the government and local authorities would find it challenging to participate in urban development. Nevertheless, people who are ideologically committed to private property do not see merit public ownership (De Soto 2000; Deininger 2003). Public land ownership is considered a potential source of corruption and mismanagement (Deininger 2003). It is important to abandon. They suggest that the focus on ownership should be abandoned because it is less critical than coherent contractual arrangements for goal-orientated land management and control. The preoccupation with private property simply assumes that ownership conveys information about coherence of land management and use. Yet, all forms of ownership can lead to either good or bad outcomes. It is not ownership that is decisive; it is, rather, the social rules that exist for wise and sustainable land use. Often, too much attention is paid to ownership, while the more important issues of contractual rules and procedures for coherent land management are ignored.

Since Zimbabwe's independence in 1980, land management had been a technical process driven by government and local authority officials, but with the introduction of more formidable political opposition in the form of the Movement for Democratic Change (MDC) in 1999, public land assumed more economic and political importance. So when land reform reached urban areas in the early 2000s, public land, the bulk of which was publically acquired peri-urban farms, became an important asset for allocation to favoured entities. In the post-2005 Operation Murambatsvina fallout, the government implemented a national housing programme partly to address public outrage, and a substantial amount of land was allocated to housing cooperatives and land developers. Land developers, who are usually politicians, enter land development to gain power and influence and participate in the legitimacy of the state. For example, in Gweru city, Hertfordshire 1 and 2, Lot 73 of Umsungwe Block, and Tatenda Park are government projects that have the semblance of private development.

Urbanisation in secondary cities has been driven by a top-down approach to planning and development. 'Peri-urban land acquisition was championed by the top hierarchy through directives – and did not create structures for land management' (key informant 4). The land acquisition and development process was poorly informed from a professional and technical perspective. The lack of stakeholder participation and professionals were used more as tools to deliver land administration functions. Acquired land that ordinarily falls under the jurisdiction of Rural

District Councils has mostly not been transferred to urban councils, which would then manage and control urban development. Such land is not covered by the General Valuation Roll and cannot be rated in terms of the Urban Councils Act. Given this scenario and without up-to-date master plans, public land management has not been goal-directed. All 32 urban councils in Zimbabwe do not have up-to-date master plans.

In 2003, the Ministry of Local Government, Public Works and National Housing issued a manual on the decentralisation of urban public land to local authorities (Ministry of Local Government, Public Works and National Housing 2003). The government handed over the allocation and sale of public land to councils, excluding the 10% commonage held by the government. The councils were to retain the revenue accrued from the sale and lease of urban public land. The 10% commonage refers to that percentage of all vacant and undesignated urban public land at the point of transfer to an urban council. Decentralisation has been partially implemented. As there have been no instruments to guide the process, the Urban State Land Office in the Ministry of Local Government, Public Works and National Housing has, in many cases, continued to allocate public land.

6.5.2 The Institutional and Legislative Framework

There are many authorities and actors in urban public land management. Authorities include the now Ministry of Local Government and Public Works; the Ministry of Lands, Agriculture, Fisheries, Water, and Rural Resettlement; the Ministry of Women Affairs, Community, Small, and Medium Enterprises; local authorities; and state enterprises, such as the Urban Development Corporation (Udcorp). Actors include land developers, housing cooperatives, and land barons. The institutional framework for land administration is characterised by fragmented and overlapping authorities, resulting in a lack of integrated development. A local authority can have third and fourth parties, such as when a developer compiles a list of land beneficiaries and prepares lease agreements working with local authority officials outside of the council. This arrangement lengthens and increases the cost of the land delivery process. Depending on the situation, public land allocation can be done by the Urban State Land Office, any of the aforementioned Ministries, the local authority, a land developer, or a housing cooperative chairperson – a situation that key informant 3 described as essentially a vacuum in governance systems. Procedures become unclear to members of the public. In this maze, actors such as land developers and housing cooperatives hire their own planners and land surveyors while sometimes engaging the services of council employees. Land barons occupy and sell land, while some councillors make public land decisions outside council, and some officials may have their own public land for sale (key informant 1).

The multiplicity of authorities and actors in public land has resulted in a lack of accountability in the land management system. At the national level, the Permanent Secretary is officially the accounting officer, but is no longer so in reality because

some operational matters get addressed to the Minister. At the local authority level, the Town Clerk is officially the accounting officer, but municipal authority over public land has been usurped by actors such as cooperative chairpersons, developers, and land barons. The introduction of additional role-players such as housing cooperatives, developers, and additional ministries into urban public land has decimated functional structures for land management.

The absence of a clear governance structure for public land management has 'created leakages, opportunities for abuse of power, hiding of land information and invasion by politicians in management systems, yet their role is to develop policy or ask management to write policy as seen by politicians, so as to put things back on the rails' (key informant 3). This situation has weakened local authorities. Public land is used for political patronage – it has become a tool in manipulating individuals (key informant 4). The power of housing cooperatives to manipulate individuals has been strengthened by making public land available. A ruling party cooperative chairperson can allocate land to an opposition Member of Parliament in a bid to switch their political allegiances. Developers and land barons play around in institutional gaps and loopholes, further weakening institutional arrangements for land management.

A key challenge for administrators is that land developers are part of the political hierarchy (key informant 4). At the height of the national housing programme, the Provincial Ministers of State and Devolution's land committees did not use the tender process, and few attempts were made to check the track record of land developers. Some land developers would directly approach the Head Office for land allocation. Beneficiaries pay the intrinsic value of land to the Ministry of Local Government and Public Works. Land developers collect money from beneficiaries for use in provision of services, but these funds tend to be diverted to other purposes, thereby causing leakages in public land management. They have no legal obligation to develop infrastructure and services, as they do not own the land. Additionally, local authorities do not have control over land developers/land barons in land development. Housing development proposals with inadequate land for social services sail through the council (key informant 2). Land surrendered by developers as an endowment to councils for public purposes has sometimes been converted to residential stands. One of the weaknesses is that many councillors have not been there to serve, but only to benefit from the system. At the same time, there has been no system for monitoring and disciplining officials. Further, no regulations, circulars, or time limits have obliged officials to act on matters referred to them for their attention.

In addition to multiple institutions, the key legislation that governs urban land includes the Constitution; the Regional, Town, and Country Planning Act; the Urban Councils Act; the Land Survey Act; the Deeds Registry Act; the Valuer's Act; and the Environmental Management Act. According to the Constitution of Zimbabwe, every person has an equal entitlement to property rights whether they are a citizen or non-citizen of the country. In this sense, every person in the country can acquire property as long as they follow the legal channels and procedures about property acquisition. The Regional, Town, and Country Planning Act and the Urban Councils

Act provide for urban land management by the Ministry of Local Government and Public Works and urban councils, respectively. Other land administration functions in providing access to information by the public, land registration, and valuation are provided for by the Land Survey Act, the Deeds Registry Act, and the Valuer's Act.

6.5.3 Land Administration and Sustainable Urban Development

Public land administration is centralised in the Urban State Land Office of the Ministry of Local Government and Public Works, which lacks adequate financial and human resources (key informant 2). The centralised land management system has not been able to monitor local development. 'Control needs local administrators – people build at night and complete building operations in two days' (key informant 1). Since 2000 as land developers and housing cooperatives have driven residential estates, the provision of infrastructure and social services has lagged behind partly because of corruption and partly because land is sold to beneficiaries at intrinsic value. Councils should assume responsibility for infrastructure provision to improve land value. At a minimum, land should be sold at a cost recovery rate.

6.5.4 Chitungwiza Case Study

Chitungwiza was formed in 1978 by the amalgamation of Seki, Zengeza, and St Mary's. It gained municipal status in 1981. When a town acquires municipal status, land falling under its jurisdiction should be transferred to it by national government through a Deed of Grant. The transfer of ownership empowers the municipality to manage and control all land under its jurisdiction. Contrary to this legal procedure, public land in Chitungwiza is owned by the state and is mostly managed by the Urban State Land Office. This policy inconsistency has not allowed the town to effectively use land for economic development in a sustainable manner. When land is transferred to the municipality, the government has the right to use 10% of it in the provision of public facilities such as schools, hospitals, police stations, and recreational parks when the development proposals are approved by the local planning authority.

However, in Chitungwiza, the government has not stuck to the statutory purpose of commonage and has been asking for the 10% in the form of commercial and industrial stands Also the type of stands asked for has been decided on a case-by-case basis. Policy inconsistencies have gone beyond non-transfer of land to the council upon attainment of municipal status. In peri-urban Chitungwiza, the Ministry of Lands, Agriculture, Fisheries, Water, and Rural Resettlement created

A2[1] resettlement plots held through Offer Letters to beneficiaries. Beneficiaries have been illegally subdividing plots and disposing of subdivisions as residential stands. On the other hand, the Ministry of Local Government and Public Works approved a layout plan over the same area, but this plan could not be implemented because A2 farmers approached the courts to contest the residential development proposals.

The government has officially decentralised the management of public urban land to local authorities, but in Chitungwiza it has been running parallel structures such as the Nyatsime Development Association. Parallel structures defy local authority and are in dispute with the municipality over land control. Consequently, land development in Chitungwiza is mainly controlled by private players in the form of land barons. One of the land barons controlled one-third of the land in Chitungwiza. Land barons, youth groups, and war veterans have thrived on allocating and selling public land, while land boundaries have not been clear. Land barons are members of political parties who maintain their loyalty to power holders. 'Central government can be harsh because of different political views – where the opposition party controls council, central government withdraws power for public land' (key informant 5). Without a Deed of Grant, the council cannot make independent decisions over public land. To maintain the subservience of people, the central government finds itself interfacing with private players rather than the council in public land management.

In Chitungwiza, public land has meant a lack of control and chaos. 'It has all been about political interests' (key informant 5). Public land is sensitive and has been a source of threats and insecurity. In the Nyatsime part of Chitungwiza, there have been power wrangles between the Municipal Council, the central government, and the Manyame Rural District Council over the control of public land. Land has been used as a political asset, and deliberate administrative confusion has been a source of corruption. Councillors and council employees collude in maladministration in the 'politics of the belly' – they may have different political allegiances but can go into unholy alliances when it comes to benefiting from public land. Corruption is a chain process that benefits all echelons of the government through opaque transactions. One of the land barons, Frederick Mabamba, controlled about a third of the land in Chitungwiza. The Zimbabwe African National Union-Patriotic Front (ZANU-PF) linked land baron illegally parcelled out land worth more than US$ 16 million in the city (Maphosa and Chidakwa 2021).

A land audit conducted by the central government found widespread allegations of corruption regarding land allocation (Ministry of Local Government, Public Works, and National Housing 2013). In the politics of the belly and given the political and economic crisis, the concept of public land has been used to tame any dissenting voices. For example, leaders of the Residents Association have benefited from the allocation of stands and market stalls, and should they raise their voices, it

[1] This consisted of resettlement model during the land reform programme which sought to create small-scale and medium-scale indigenous commercial farmers.

is assumed that they did not receive something. When allocated stands, they are expected to reciprocate the favour by protecting councillors. The Residents Association tends to be dominated by failed politicians who often join pressure groups to protect their assets. They usually become gatekeepers in political communities.

Many acres of land in Chitungwiza were illegally allocated to land barons, politically affiliated youth, unapproved housing cooperatives, council officials, and councillors. The land was then used for nondocumented development, substandard buildings, and other developments that are not supported by development plans; neither are they indicated on maps or otherwise recognised by local and central authorities (Ministry of Local Government, Public Works, and National Housing 2013). Legally, the central government is in charge of spatial planning and stand allocation, but due to lengthy bureaucratic procedures involved in doing so, there are significant time lags between proposed policy measures and their actual implementation. These delays give land barons and other private parties the time to develop layout plans and allocate stands resulting in the development of illegal buildings.

During election cycles, the delicate relationship between central government, local authorities, land barons, and housing cooperatives is tested time and again, often leaving behind complicated illegal developments, which municipalities need to deal with, despite their lack of resources. Chitungwiza, like other opposition-run local authorities, is starved for 'agency' – it lacks its own locally generated revenue, and hence must depend on central government for funds to address purely local problems. This fiscal starvation then forces local governments to engage in various tricks and workarounds, out of which corruption immediately arises.

6.6 Discussion

Urban public land management in Zimbabwe has been problematic due to the interaction of policy, political economy, and institutional factors. At the apex of the problems is the fact that, since independence in 1980, urban policy has not been a priority. The current national land policy focuses on rural land and has no statement on urban land (Ministry of Lands, Agriculture, and Rural Resettlement 1990). In particular, policy pronouncements have focused on land reform and rural development (Muchadenyika 2020). Apart from neglect of urban policy, there is a gap between the status quo and recent global debates on the role of urban land management in the development of sustainable and smart cities. In the Zimbabwean context, political and economic instability and corruption form a complex set of interrelated drivers that have affected urban public land management in secondary cities.

Political goals and narratives relevant to urban land management objectives have dramatically changed, and this has seen the creation of networks of knowledge across Africa and the world such as the International Federation of Surveyors (FIG),

German Agency for International Cooperation (GIZ), Global Land Tool Network (GLTN), Network of Excellency on Land Governance in Africa (NELGA), and Advancing Collaborative Research in Responsible and Smart Land Management in and for Africa (ADLAND), which have been crucial in the development of innovative approaches to land management (Home 2021). These networks have emphasised good land governance supported by a technology-enabled land information management system and the use of open data. With the emergence of new technologies, the tools to collect, share, present, and distribute data have rapidly increased.

In Zimbabwe, as in most former African colonies, political independence has been followed by deflation of state capacity (Beissinger and Young 2002). Declining state capacity has been partially explained through the level of state legitimacy. It has been observed that state legitimacy explains about a third of the variance in state capacity across the African continent (Englebert 2000). It seems obvious that the more legitimate the state, the greater the quality of its governance. Equally, the more illegitimate the state, the more likely political elites would resort to patronage policies, which lead to poor governance and economic stagnation. Ruling elites of low legitimacy states tend to adopt patron-client relations with their attendant propensity for corruption, regionalism, and disregard for the rule of law.

Housing cooperatives have filled gaps in state capacity for land delivery in a situation where urban land management serves the interests of the ruling elite more than citizens. Urban public land delivery has been part of statecraft, but has paradoxically been contributing to the weakening of the state (Skocpol 1996). It is important to note that the main opposition political party runs most cities in Zimbabwe; cities have thus become a battleground where patronage networks compete to gain the most power. For the ruling elite, state building has been synonymous to ensuring loyalty by all to the ruling party (Beissinger and Young 2002). In this regard, oppositional political parties are not considered part of the nation-state but agents that seek to topple a sovereign state. The state has not been able to work with opposing groupings but has been characterised by contestation in the practice of exclusive politics (Migdal 2001; Chavunduka and Chaonwa-Gaza 2021). In this context, urban public land management has been more a political than a technical exercise, and land has been used as a reward for supporters and as a means of luring new members to join specific political parties. ‘Some institutional structures derive their authority not from legislative instruments but from the executive, which constitutes and reconstitutes them’ (Jacobs and Chavunduka 2003, p. 294). Public land management has not had clearly assigned authority and transparency.

Most housing cooperatives have formed alliances with politicians from the ruling party and have been able to challenge local authorities controlled by the opposition. They perform executive functions such as land use planning, land allocation, and approval of building plans (Muchadenyika 2017). An example is Chitungwiza’s Zanoremba and United We Stand housing cooperatives that have become unofficial local authorities, approving layout plans, allocating land, processing sale agreements, and approving building plans. National government has enabled housing cooperatives as parallel structures for public land management and to maintain the land information management system, thereby essentially privatising public land

control. Private actors in the form of housing cooperatives, developers, land barons, and trusts have been taking control of public land; the state has continued its public land management role through the Urban State Land Office in the Ministry of Local Government and Public Works. The government has not consistently implemented decentralisation of public land, and there has been no publicity of the public land management process.

Meanwhile, local officials and councillors have taken advantage of the mess in land administration, and together with their allies are reaping financial gains from governance failures. Thus, it has been noted that each of the town planners and housing director in Chitungwiza had stands for sale (Muchadenyika 2020). As indicated in the case of land baron Mabamba, the current incoherence of the urban land system puts real and substantial money in the pockets of a whole cadre of officials. Before losing his elected position, Mabamba served the Chitungwiza City Council as a Councillor and Deputy Mayor since 1999.

The way forward requires rebuilding the urban land management system in Zimbabwe (Rukuni 2013). The Government of Zimbabwe and key stakeholders must design a rehabilitation plan for the land sector. A model for rehabilitating Zimbabwe's land management systems can be based on Enemark's (2005) land management paradigm presented in the conceptual framework. Figure 6.2 shows the essential features of a model that Zimbabwe can adopt to address a dysfunctional land administration system.

The proposed land administration model for Zimbabwe would consist of a spatial information system, a coherent land administration system for sustainable development, and e-government.

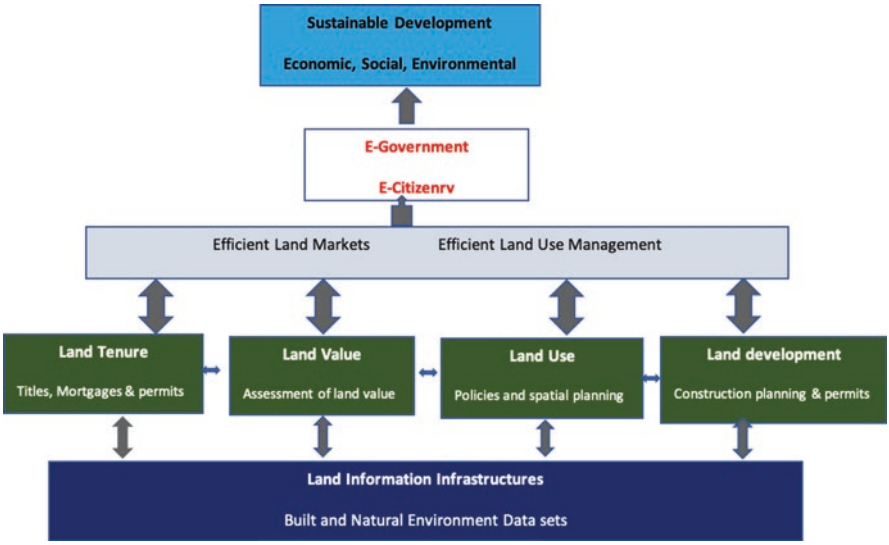

Fig. 6.2 Model land administration system for Zimbabwe. (Source: Adapted from Rukuni 2013)

6.7 Conclusions

Given that we now live in a world where more people live in urban settlements, the issue of sustainable secondary cities has gained importance. It has risen in prominence because public land management in urban and peri-urban areas has not enabled sustainable urbanisation. The legal provisions for public land management are clear; however, since the fast-track land reform programme of 2000, procedures have become lengthy and nontransparent, and the capacity of central and local governments for policy and land administration has declined. Specifically, there has been a reduction in the capacity of central and local governments to carry out their public land management mandates. In the absence of master and local plans and/or their disregard in most secondary cities, there are few goals for public land management and control. There has been no coherent urban land policy, and public land management is shrouded in partisan politics. The practice of exclusionary politics has been accompanied by a disregard for established procedures, a lack of monitoring systems and enforcement, and the absence of a vision for the land.

Extralegal authorities have undermined statutory and official structures for land management in the form of politically connected individuals and institutions that use doubtful and murky procedures. Mismanagement of public land has been exacerbated by the failure of decentralisation. Given the overbearing and politically aligned institutions like housing cooperatives, developers, and land barons, there has been no political will for decentralising land management to local authorities. The 2013 Constitution provides for devolution of power and authority to local authorities, but the Chitungwiza case showed that despite being granted municipal status in 1981, state land ownership was not transferred to the local authority as required by the Urban Councils Act. According to a survey conducted by the National Association of Youth Organisations (NAYO), '69 per cent of residents in the sprawling town were concerned about being defrauded their hard-earned cash by the politically connected land barons while 57 per cent of the residents were worried by the rise in corruption involving illegal land sales' (Munhende 2021). In general, the mismanagement of public land in Zimbabwe is a problem that threatens the livelihoods of virtually everyone in the country.

The case of Chitungwiza has been instrumental in this study as it relates to a broader class of events: abuse of power and corruption. It expands earlier understandings of the dynamics of contention as individuals colluded across the political divide in the fight for politics of the belly. Immiseration has been a catalyst for corruption, and this does not look like a passing phase as long as the political and economic crisis continues. Tellingly and viewed in the context of land corruption in Zimbabwe, the Chitungwiza case is a microcosm of governance failures in Zimbabwe (Chiweshe 2021).

The way towards good public land management and sustainable secondary cities requires political reform from viewing land as a political instrument to inclusive politics of land. Inclusive politics enables a shared vision of land and the restoration of the rule of law rather than the rule of individuals. The need to implement

provisions of the Constitution on devolution and public participation is important. There is a need to transfer public land ownership to municipalities for their comprehensive, responsible, and smart management. In doing this, it is notable that agencies should derive their mandate from the Constitution and/or law and not from the executive or administration (Jacobs and Chavunduka 2003). Consideration of these policy prescriptions would provide a framework or streamline the authorities, clarifying land management structures and procedures for sustainable secondary cities.

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Part III
Governance for Climate Change Disasters

Chapter 7
Emaciated Potential: Reflecting on How War and Natural Disasters Stunt Beira's National-Regional Importance and What Could Be Done About It

Kudzai Chatiza and Tariro Nyevera

Abstract Beira is a secondary city in Mozambique. It is important not only to Mozambique but also in terms of being a gateway to Central Africa and the rest of the Southern African Development Community (SADC). This latter opportunity for Beira's growth appears to be underactivated. It is also not adequately discussed for other SADC secondary cities of appropriate, yet untapped regional significance. In the case of Beira, the growth has historically been held back by war and natural disasters. These two factors have affected the city and its hinterland, the Beira Corridor. This stunted growth is further exacerbated by gaps in regional urban policy for strategic secondary cities. The chapter explores the extent to which national and regional urban policies are connected in Mozambique. It draws on a review of relevant academic and policy literature at the Mozambican and SADC levels to illuminate strategic responses that may or may not elevate the national and regional importance of the city connecting its planning to other secondary cities in SADC and attracting regional attention to investment along the corridors connecting them and within the individual cities. In doing so, lessons are drawn for Mozambican and SADC urban development policy regarding secondary cities and regional infrastructural investment in general.

Keywords Regional urban policy · Secondary cities · Urban disasters · Regional instability

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7.1 Introduction

This chapter explores the extent to which national and regional urban policies are connected to advancing the Beira Corridor, anchored on the Beira Port. Beira is a secondary city in Mozambique. Both the port and the city are the second largest in Mozambique. They have a national and regional significance, which has been constrained by wars and natural hazards (Shannon et al. 2018) alongside other classic constraints like rapid and underfunded urbanisation (Schofield and Deprez 2019). The city and its hinterland, extending into neighbouring Zimbabwe, are largely affected by the above factors. Urban governance practices at the national and regional level are integral to the management of these factors.

Urban governance refers to how the government (local, regional, and national) and stakeholders decide how to plan, finance, and manage urban areas (Avis 2016). It involves more than just laws and regulations, encompassing mechanisms and strategies to respond to shocks and challenges (Smit 2018). Secondary cities, with their smaller economies and less capacitated local governments compared to primary cities, face severe challenges in performing urban governance functions (Smit 2018). They generally have weaker urban economies and suffer from more fragile institutional and financial bases. UN Habitat (2016) notes that secondary cities experience chronic inequality of opportunities, widespread poverty, inadequate capital investments, and lack of pro-poor social programmes.

SADC countries are experiencing increased urbanisation, and the urban population has increased from 36.5% in 2000 to 46.0% in 2020 and is expected to increase to 51.4% by 2030 (Simkins 2021). This translates to an average annual growth rate of 3.8% between 2000 and 2020. In discussing Beira's circumstances, an urban development framework becomes important to steer the debate away from capital cities while also engaging with prospects of what can be referred to as past-sovereign urbanisation (Angelopulo 2021).

7.2 Conceptual Framework and Methodology

There is a long historical relationship between ports and cities. The development of Beira Port, as a regional node, has implications for the city and its national and regional surroundings. The city, port, and corridor onto which they open must be integrated in terms of physical and economic planning and governance. Similarly, the constraints faced require layered responses that go beyond the immediate environment of Beira. Port city governance, planning, and management need to be understood at metropolitan, regional, and international scales. The partnerships and roles of international, regional, and national actors towards improving port corridors, especially those prone to climate change-related disasters, must be clearly understood. These needs enable the identification of governance gaps in the growth of a port city. The degree of participation of the private sector in the governance of

the port city is also critical. Where these relationships are unclear, the regional and international significance of ports and the cities that host them can be lost, which impedes the growth and development of port cities.

Development corridors occur along transport routes that facilitate a variety of social and economic activities (Hope and Cox 2015) of international relevance. Evolution into a fully fledged economic corridor requires broader investments in soft and hard infrastructure in the area served by the corridor. These investments require urban governance frameworks that are aware of international-, regional-, national-, and local-level imperatives. The chapter will examine how investments towards improving the Beira port corridor have been impaired over time by war and other disasters. The two clusters of factors that limit Beira's development are discussed with a focus on illuminating the kind of urban governance responses that Beira City, the national Government of Mozambique, and stakeholders from the SADC can explore to ensure thriving strategic secondary cities in the region.

The chapter is based on a desk study of academic, policy, and development literature. It reviews critical literature on port cities, international development corridors, urban governance structures, and scales of private sector participation in urban development. Some online key informant interviews were held to better understand the experiences of Beira City and the regional trade flowing from/to it.

7.3 Secondary Cities

There are many definitions of secondary cities. These definitions are based on the size of the population, administrative area, and the political, economic, and social significance of a city (Avis 2016). Secondary cities are the second tier in a national urban area hierarchy based on population thresholds (UN Habitat 2016). They are hubs in the production and distribution of various city systems connecting different spatial levels of human settlement (Marais et al. 2016). Avis (2016: 46) states that 'secondary cities act as catalysts and secondary hubs in facilitating the localized production, transportation, transformation, or transfer of goods and services, people and information between subnational, metropolitan, national, regional and global systems of cities'. This shows their importance to their local, national, and regional settings. Existing literature, however, shows that urban systems in most secondary cities are poorly integrated, poorly designed, and therefore weak (Marais et al. 2016) at the local, national, and regional levels.

UN Habitat (2016) argues that many secondary cities in developing countries have failed to develop global or even national linkages and struggle to accommodate growing populations. This is partially because resource flows from central to city governments are often distorted in favour of large first-tier cities (Avis 2016). Central governments often fail to appreciate the important role of secondary cities and the different sets of policies and programmes needed to support local economic development (Marais et al. 2016).

7.4 Wars, Conflicts, and Their Impact on Urban Areas

After independence, many countries in Africa experienced civil war. Examples include Angola, the Democratic Republic of Congo (DRC), Mozambique, Liberia, Sierra Leone, Ivory Coast, Somalia, South Sudan, and Rwanda (Muldrow 2002; Annan 2014; Molemele 2015). Civil wars resulted from socio-economic, political, cultural, military, and legal disequilibria forcing individuals or groups to clash over interests, values, and goals within a state (Muldrow 2002).

Conflict is a multifaceted phenomenon (Elfversson t al. 2019). Collier and Hoeffler (2004) suggested that conflicts result from greed and grievances. Many rebellions appear to be linked to access to and control over resources, for instance, diamonds in Angola and Sierra Leone, drugs in Colombia, and timbre in Cambodia (Muldrow 2002). In that respect, civil war can be considered systematically related to economic conditions, such as dependence upon primary commodity exports and low national incomes (Muldrow 2002; Collier and Hoeffler 2004; Molemele 2015).

There are grievances that emerge from sociopolitical factors that emanate from extreme poverty, marginalisation, gross inequalities, and weak state capacities to deal with previous conflicts (Collier and Hoeffler 2004), resulting in violent conflicts (Molemele 2015). Triggers vary and can be both internal and external to the localities of conflicting parties. In the main, they include exclusionary government policies, external support for repressive regimes, and small arms proliferation (Annan 2014). It is also important to consider mobilising factors such as religion and ethnicity that are used to induce violent action. In countries like Burundi, Rwanda, Liberia, and the DRC, conflicts are mobilised around ethnicity, race, sovereignty, language, and cultural factors (Elfversson and Höglund 2021).

The relationship between wars and development is clear in the literature. Collier (2004: 1) argues that 'the relationship between civil war and failures in development is strong and goes in both directions: civil war powerfully retards development; and equally, failures in development substantially increase proneness to civil war'. Wars in and around cities imply development in reverse. Armed conflict often leads to forced migration, refugee flows, capital flight, and the destruction of infrastructure (Elfversson and Höglund 2021). It creates a development gap between those countries that have experienced armed conflict (even those closer and/or supporting) and those that have not (Lemke 2003).

Wars are becoming more urbanised in nature (ICRC 2017; Elfversson et al. 2019). Cities in countries such as Syria, Ukraine, and Somalia have been the sites of major incidents of armed conflict (Elfversson and Höglund 2021). The impact on interconnected and interdependent urban infrastructure systems and services is drastic (Lemke 2003). These impacts take long and considerable resources to rebuild. Urban warfare and attacks on urban services directly, indirectly, and cumulatively impact urban liveability with consequences for urban populations (ICRC 2017).

Between 1989 and 2016, Elfversson and Höglund (2021) found more deaths in rural areas than in cities. This may result from fewer war experiences in cities than

rural areas. Cities were the most fortified places, with wars only reaching them as armies retreated. Conventional civil wars were associated with guerrilla fighting primarily in rural areas (Lemke 2003), mostly triggered by underdevelopment and marginalisation of the peripheries.

Büscher (2018) found that Mogadishu in Somalia, Goma in the DRC, Juba in South Sudan, Bamako in Mali, and Bujumbura in Burundi bore significant scars of war. These cases demonstrate how wars and violent conflict take multiple forms. Wars and conflicts produce many destabilising effects through forced mobility, increasing militarisation of political struggles, state fragmentation, and incapacitation. Regarding the latter, Tahir's (2021, 2022) work shows Mogadishu's fractured land administration, conflict around critical infrastructure, and restricted urban reforms are historical outcomes of war. Even after a war, persistent threats of further conflicts within cities may recur. Beall et al. (2011: 2) suggest that 'external intervention in sovereign conflicts can also give rise to new conflicts – particularly in cities – even where the aim is "post-conflict" reconstruction'. ICRC (2022) observes as follows:

> *It's heartbreaking to watch a city you love die. Yet that…happens when armed conflicts are fought in…cities, endangering the lives of civilians and the infrastructure they depend on. The…consequences of urban warfare persist years, and even decades, after the fighting ends.*[1]

Beira's experiences with war before and after Mozambique's independence align with this framing of the constraints of its development. The effects of war are also closely related to the factors of national political economy. Zimbabwe's second city, Bulawayo, also had a similar post-independence-restricted growth due to the civil war that constrained local economic activities, as well as government-supported development interventions for more than a half decade. The effects of destabilisation have persisted for over a generation since the end of the fighting.

7.5 Mozambique's Political Economy and Its Framing of Beira's Urban Development

All land in Mozambique belongs to the state (Sumich 2020). Responsibilities for planning, development, and issuing licence are passed to local authorities. Beira is governed by a Municipal Board with responsibility for all urban assets except for electricity, water, and primary roads, which are administered by national entities (Shannon 2020). The city relies on the national government for financial resources, including raising funds through services and land taxes. Land tenure remains largely secure in Beira. The nationalisation of land resulted in a certain level of control over urban development, even if it remains largely informal (Schofield and Deprez 2019).

[1] https://www.icrc.org/en/what-we-do/war-in-cities downloaded 24 October 2022.

The spatial planning system of Mozambique comprises four levels: national, provincial, district, and autarchic (UN Habitat 2017). At the national level, the National Institute for Physical Planning (INPF) has, since 1985, prepared physical plans or supported the City Executive Councils (CECs) in their preparation, draughting planning norms and principles, as well as monitoring and controlling implementation (UN Habitat 2008). The municipal/autarchic level regulates local activities (Murithi et al. 2012) (Box 7.1).

Box 7.1: Urban Legal Framework for Mozambique

- *National level*: National Territorial Development Plan
- *Provincial level*: Provincial Development Plan (*Plano Provincial de Desenvolvimento Territorial*, PPDT). In practice this level has not yet developed and used
- *Regional level*: Special Plans for Territorial Development (PEOT). This instrument is meant to orient the spatial organisation of areas with spatial, ecological, economic, and inter-provincial continuity. It has not yet been applied in Mozambique
- *District level*: District Land Use Planning (*Plano Distrital de Uso da Terra*, PDUT)
- *Municipal level*: Urban Structure Plan (PEU), General Plan or Parcelation Plan (*Parcial de Urbanização* (PGU/PPU) and Detailed Plan (PP)

There has been a huge financing gap for urban development in Beira. Part of this arose from the Structural Adjustment Programmes (SAPs) of the 1980s, which focused on reducing the state's role to a minimum, with state intervention occurring only in the face of market failures (Zattler 1989). As a result, Mozambique and other regional countries made fiscal cuts in government spending (Hofmann 2013), which affected public sector infrastructure financing, with formal land administration and planning coming to a standstill. Urban expansion was predominantly structured by 'bottom-up' governance practices, which continue to be the majority practice (Shannon 2019). Local capacity to carry out or maintain infrastructure works is weak (Schofield and Deprez 2019). The dominance of an opposition political party, RENAMO, resulted in the marginalisation of the city, reducing benefits from potential investment programmes (Byiers et al. 2020). This explains the patchwork of mandates that continue to be held by state entities instead of being the responsibility of municipal institutions (Murithi et al. 2012).

On realising the challenges from the SAPs, towards the end of the 1990s, two major changes were witnessed in Mozambique, and Beira in particular. These were the privatisation of Beira City's Port management and the decentralisation reforms, which paved the way for municipal elections in 1998. The privatisation of port management in 1997 was contracted to a consortium headed by the Dutch Port Company, Cornelder (Shannon 2019). The Beira Port Concession (1998) is responsible for managing activities at the port. The shareholders are (i) *Cornelder de Moçambique*

(CdM), a subsidiary of Cornelder Holding BV (Netherlands), and (ii) CFM Central. The Management Contract was initially from 1998 to 2023 and was extended in July 2018–2038. CFM is the representative of the Mozambique Government. It holds 67% of equity ownership, and the remaining 33% is held by CDM (ACIS 2008). CDM has been operating the Container and General Cargo Terminals at the Port of Beira since October 1998. The Terminals are currently cited among the key bases for transport logistics in the country.

The concession includes the Container and General Cargo Terminals but excludes the Coal and Fuel Terminals, which continue to be operated by CDM (Humphreys et al. 2019). The collaboration between CFM and CDM has proven successful, as evidenced by changes in container and freight volumes between 1986 and 2018. During that period, container volumes grew from 36,090 TEUs in 1986 to 218,876 TEUs in 2017, representing an average annual growth rate of 9.4% per year (SPEED 2018). General freight volumes grew from 577,000 metric tons in 1986 to 2,650,000 metric tons in 2017, representing an average annual growth rate of 7.9% per year (Humphreys et al. 2019).

The second major reform in Mozambique was the implementation of decentralisation reforms which paved the way for municipal elections in 1998 (Shannon 2019). RENAMO boycotted the 1998 elections but later won the 2003 elections for Beira, a major blow to FRELIMO's consolidation of power. This is often cited as a reason for Beira's strategic neglect by the national government (Shannon et al. 2018). Tense relationships between national and local government are considered a dominant feature of Beira's urban governance and civic identity. The antagonist relationship between central state and Beira is widely considered to be the reason that the city has suffered further neglect and underinvestment in the post-war years (Murithi et al. 2012).

The fraught relationship between central and local government in the city resulted in the opposition looking to international agencies for support (Nkhonjera 2020). The Arab Bank for Economic Development in Africa (BADEA), the World Bank, the European Union, and the Netherlands were some of those approached (Nkhonjera 2020). They are working to improve infrastructure and built environment. Infrastructure development projects include water, drainage, sanitation, and green spaces. Unfortunately, Beira's infrastructure has not kept pace with population growth (UN Habitat 2020). Furthermore, chaotic urban development over the past 60 years and the fall in public sector investments resulted in an urban area that is unequally protected against environmental risks (Schofield and Deprez 2019). The city faces challenges of vulnerability to droughts, flooding, and tropical cyclones (Nkhonjera 2020). As a low-income country city, responses to the multiple hazards related to climate are inadequate given a context of general limitations in capability regarding national preparedness and response. These experiences also affected neighbouring countries such as Zimbabwe and Malawi, which ultimately affect trading opportunities within the region. Zimbabwe, Mozambique, and Malawi were significantly affected by tropical cyclones Idai and Kenneth in 2019. Investment efforts were directed towards recovering from these effects.

Droughts, tropical cyclones, and floods are the most frequent events (Meeuws 2004). Between 1965 and 1998, there were 12 major floods, 9 major droughts, and 4 major cyclone disasters (Wiles et al. 2005). Between 2009 and 2019, there were six major cyclones that hit Mozambique (ACAPS 2019; UNDP 2015, and Phiri et al. 2021). Thus, Beira faces the twin challenge of increased vulnerability to intense adverse weather conditions due to climate change and a lack of adequate and affordable infrastructure development. These challenges weaken the regional contribution of the city to the Beira Corridor. Malawi, Zambia, and Zimbabwe, which could trade more economically and directly through Beira Port, do not have investment programmes that could benefit the corridor.

7.6 Urban Development in the Context of War, Disasters, and Regional Strain

7.6.1 Beira's Transformation

The Beira Port was the main reason for the establishment of Beira City. The location of the port on the central Mozambique coast remains as important today as it was when what was to become the city was founded in 1887 (Shannon et al. 2018). There are about 600 000 inhabitants in Beira, the second largest coastal city in Mozambique. The city is at a very low altitude, only slightly above sea level. UN Habitat (2020) reveals that 40% of the city's inhabitants live in high-risk flood zones, while 60% are in flood-free zones. For the most part, Beira is essentially a transit port, handling import, and export cargo destined for landlocked Zimbabwe, Malawi, Zambia, the DRC, and Botswana (Murithi et al. 2012; Nkhonjera 2020) as well as north-eastern South Africa and Swaziland. It lies in the central region of the country in Sofala province, where the Pungwe River meets the Indian Ocean (ACIS 2008). It is one of the three major ports, the other two being Maputo and Nacala ports. Mozambique's minor ports include Pemba and Quelimane.

Key indicators of urban development are worrying for Beira City. 70% of its residents live in substandard housing in at least one major aspect of construction; 25% do not have access to solid waste management services, 60% do not have regular access to quality energy sources, 45% do not have access to a consistent and quality source of water, and an estimated 45% dispose of human waste in a way that poses a threat to public health (UN Habitat 2020). Despite these challenges in urban planning and management, the City of Beira has continued to take advantage of its strategic location in the country and the SADC region, acting as a growth engine in Sofala province and contributing a third to the national GDP. The economic heart of Beira remains the port and the cluster of transport and logistics services, in the road, rail, and pipeline subsectors associated with national imports and exports and transit trade to key hinterland markets along the Beira Corridor (SPEED 2018) (Fig. 7.1).

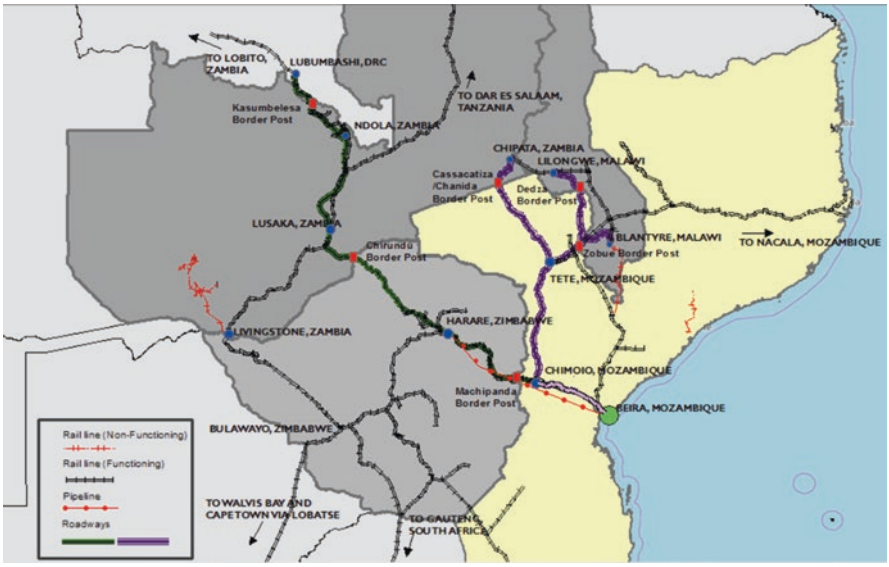

Fig. 7.1 Beira Port's freight infrastructure routes. (Source: European Commission 2005)

Table 7.1 Road, rail, and pipeline infrastructure linked to the port of Beira

Road network from the port of Beira in Mozambique. It accounts for approximately 95% of the freight traffic	Machipanda/Forbes border, to Harare in Zimbabwe through the Chirundu border, to Lusaka in Zambia to the Zambian Copperbelt through the Kasumbalesa border to Lubumbashi in DRC
	Via Chimoio and Tete through the Cassacatiza/Chanida border, to Lusaka in Zambia to the Zambian Copperbelt through the Kasumbalesa border, to Lubumbashi in DRC
	Via Chimoio and Tete through the Zobwé/Mwanza border to Blantyre in Malawi
	Through Chimoio and Tete through the Calomue/Dedza border to Lilongwe in Malawi
Rail network from the port of Beira in Mozambique. It accounts for about 3% of freight traffic	Through the Machipanda/Forbes border to Harare in Zimbabwe (Machipanda Line)
	To Moatize in Tete province, which is also the junction with the Nacala Railway (Sena Line)
Pipeline network from the port of Beira in Mozambique. It accounts for about 2% of the freight traffic	Through the Machipanda/Forbes border to the oil refinery at Feruka in Zimbabwe (Feruka Pipeline)

Source: SPEED (2018); Murithi et al. (2012), Byiers et al. (2020)

Table 7.1 presents the regional routes available from Port Beira.

The port thus plays a critical role in the economic development of the southern African region, providing sea links with South Africa, Europe, and Asia. The main cargo segments handled at the Port of Beira are container, combined general cargo and dry bulk, coal, and fuel (ACIS 2008). There have been changes in the origin and destination of cargo since 2000. Before 2000, only 16% of the cargo originated from Mozambique. In 2011, it was estimated that 54% of the cargo was Mozambican, 22% Malawian, 15% Zimbabwean, and 6% Zambian (Sandhop 2013).

7.6.2 Civil War (1976–1992) and Its Impact on Beira

Mozambique became independent from Portugal in 1975, after a 10-year liberation war. A civil war began shortly after independence and lasted 16 years (SPEED 2018). The economy of Beira City declined due to wars and sanctions. The war was fought between Mozambique's ruling Marxist Front for the Liberation of Mozambique (FRELIMO), the anti-communist insurgent forces of the Mozambican National Resistance (RENAMO), and several other smaller factions. In the 1970s, Zimbabwe's liberation war was also fought mainly from bases in Mozambique around Chimoio and other areas along the Beira Corridor.

The corridor was a theatre for the war between RENAMO, which opposed FRELIMO's attempts to establish a socialist one-party state (Hanlon 2010). Beira was relatively isolated (Noden et al. 2011). Port activity slowed and was only kept afloat by the influx of truckers and military personnel from the neighbouring countries of Zimbabwe, Zambia, and Malawi. The isolation of the Beira Corridor during the civil war stalled the growth of the city while RENAMO, whose bases were mainly in the corridor area (Sandhop 2013) and it sought to keep the corridor open for its own needs. These two factors cumulatively debilitated Beira's growth, creating a regional problem. The wars also delayed impacted the implementation of the Beira Development Corridor Plan until the mid-1990s, when South Africa's democracy meant that Beira began to compete with more established ports in that country. Additionally, the recent rise in insecurity in the centre of the country from 2017 threatens Beira's development. Attacks by a RENAMO breakaway group before and after the death of its leader in May 2018 were all centred on the Beira corridor.

Civil wars in Mozambique partly led to the collapse of the Beira Corridor Authority (BCA). The BCA was created by the Government of Mozambique in 1985 with financial support from the World Bank. Its focus was on coordinating and promoting the rehabilitation of the Beira Corridor as part of the government's economic recovery project that sought to reduce costs and increase efficiency, allowing Beira to compete with Durban (RSA) and provide Zimbabwe with a cheaper alternative to the sea. However, these ambitions did not go as expected because of civil wars and a lack of experience with the concept (Byiers et al. 2020). However, despite the ongoing Mozambican Civil War, the BCA successfully met most of its targets and major projects (SPEED 2018).

Civil wars negatively affected Beira City's growth. Beira underwent significant urban decay, aggravated by its locational attributes of being on low-lying land prone to flooding. People fled to Beira during the 15-year civil war in Mozambique that ended in 1992 because the city was deemed safe. Frequent droughts in Mozambique's impoverished countryside also pushed more people to the city. As a result, the city that was originally built for approximately 100,000 residents now has almost six times that number (according to the 2018 census), placing significant pressure on urban infrastructure networks.

7.6.3 Disasters and Their Impact on Beira

Beira is one of the most vulnerable urban areas to climate change (SPEED 2018). Over the years, it has been hit by violent storms and recurrent flooding. Between 2019 and 2021, it was hit by two severe cyclones and a tropical storm that damaged infrastructure and caused a loss of human life. In 2019, almost 90% of Beira City was destroyed (Nkhonjera 2020). The greatest destruction occurred in the poorest neighbourhoods.

7.7 Current Developments in Beira City

Beira is one of the largest economic growth nodes in Mozambique. It is currently undergoing rapid urban expansion (Nkhonjera 2020). The growing international attention towards Mozambique has increased interest in the formerly neglected city. Beira is the concentration of various national economic development projects (Shannon 2019) and resilience projects in partnerships involving the City, the Mozambique Government, international development agencies, and NGOs (UN Habitat 2008; World Bank 2022).[2] The focus of these partnerships has been on building the city back better.

Beira City has been undergoing large-scale redevelopment, mainly supported by international development partners and NGOs (Shannon 2019), while the port is being upgraded with the help of the European Investment Bank and the governments of the Netherlands and Denmark (Shannon et al. 2018). DANIDA is helping to rehabilitate the Beira airport, while the World Bank is supporting an urban water project and GIZ is sponsoring a business environment reform programme. Beira has also been successful in attracting foreign direct investments in construction, food processing, and transport (World Bank Group 2013).

[2] https://www.worldbank.org/en/news/feature/2022/01/31/building-resilience-through-green-gray-infrastructure-lessons-from-beira downloaded 23 September 2022.

Institutional arrangements for Beira's development have evolved over time. The city established the SDU Beira in 2018 to steer an integrated urban development process. This private company combines ordered urban development (residential, industrial, and logistical) with the concept of resilient cities (SDU Beira 2022). The intention is to foster the dynamism of the private and public sectors to accelerate the achievement of the Beira socio-economic development objectives (Nkhonjera 2020). SDU Beira is intervening in the land markets for housing development (i.e. social housing), commercial, and industrial real estate (UN Habitat 2020). Other areas include improving the urban mobility infrastructure. The major projects are as follows: (i) Munhava Industrial and Logistics Park, 900 hectares, and (ii) Marraza Residential and Commercial Area, 400 hectares (SDU Beira 2022). The SDU Beira promotes urban development to limit the impact of floods and climate change. The mandate of SDU Beira is to invest in (low-lying) land development and infrastructure to prepare sites for residential, commercial, and industrial construction (UN Habitat 2020). SDU Beira has a key objective of making land available for different land uses, including affordable housing.

7.8 Beira's Future (Master Plan 2035)

Since 2012 the Beira Municipal Council, in cooperation with international partners, has been developing a climate-resilient urban development strategy (UN Habitat 2020). The Beira Master Plan 2035 was developed in 2013/2014 (Moron 2014). The Master Plan promotes pro-poor urban development to improve the living conditions of Beira's residents. It focuses on the multiple issues that affect the city, including (i) port accessibility, (ii) management of the flow of goods, (iii) extension of infrastructure for the industrial sector, (iv) restoration of urban ecosystems and buffering of flood-at-risk areas, (v) enhancement of urban resilience of these flood-at-risk areas to guarantee development also within these areas, and (vi) the strengthening of coastal defences (Comino 2021).

The 2035 Beira Master Plan recognised three main challenges faced in the city. These are as follows: (i) failure to use the economic potential of the city, (ii) poor basic infrastructure and service coverage (see Table 7.2) that affect the improvement of living conditions, and (iii) weak adaptive measures to climate change (Deltares et al. 2013).

The master plan takes its cue from the 'spatial layer model', which is commonly used in Dutch planning policy and urban planning, as a land development strategy (Nkhonjera 2020; Van der Meer 2013; Macamo 2021). The model distinguishes between three physical planning layers: the base layer (including water, soil, and topography), the network layer (mainly infrastructure), and the occupation layer (zoning and land use planning). Each layer is different, but interrelated, requiring the participation of different stakeholders. In this sense, the scope of the master plan gives impetus to a sustainable and integrated urban development strategy (Van der Meer 2013).

Table 7.2 2020 infrastructure financial needs

	2020 financial gap (USD millions)	
Sector	Infrastructure	Annual operation and maintenance
Housing	435	n/a
Roads	225	12
Public transportation	49	46–74
Energy	57.3	n/a
Water	4	n/a
Sanitation	77.6	33.5
Solid waste	0.6	1.1–2.1

Source: UN Habitat (2020)

To update the plan, a 'Beira Municipal Recovery and Resilient Plan' was prepared. The plan speaks to rebuilding the resilient City (Beira Municipal Council 2019). It was prepared after the aftermath of Cyclone Idai. It is meant to address immediate recovery needs and introduce mechanisms to build back better and ensure the resilience of the City of Beira (Nkhonjera 2020). The City of Beira prepared it with support from the Dutch government, UN Habitat, and the Shelter Programme. The plan centres on the development of infrastructure (coastal, protection, drainage, sewage, solid waste, and road infrastructure).

7.9 Regional Contribution to Beira's Growth

Zimbabwe has been unable to go beyond protecting its interests in the transport infrastructure along the corridor. Thus, the regional changes that came from the mid-1990s affected Beira's post-war recovery. This left the port and city unable to immediately boost its services to the SADC region. First, South Africa's independence in 1994 meant that its regionally vibrant ports began to compete with Beira. Before South Africa became independent, Beira was a major trading route for countries in Southern Africa. For example, Durban is much better connected than the port in Beira that is reflected in its higher score in the Liner Shipping Connectivity Index of over 30 compared to 9 for Beira (Byiers et al. 2020). However, Beira could serve as the go-to point for traders in Malawi instead of transporting cargo directly to Durban by road, which remains expensive. However, goods from Beira often must be transported to regional hubs before they are shipped to the end destinations.

In their economic reports, the Southern African Development Community (SADC) emphasises the importance of geographic corridors for regional development (Habiyaremye 2020). However, infrastructural and institutional bottlenecks along these corridors – poor roads and bridges, confusing border logistics, and complex customs procedures – often hamper the operation of these other industries (SADC 2022). In 1996, the SADC Protocol on Transport, Communication, and

Meteorology was prepared. It calls for the creation of corridor planning committees to focus on specific strategies for development along the key corridors of the region (SADC 1996) and stresses that SADC member states must cooperate on the development, operation, coordination, and rehabilitation of transport infrastructure.

The Corridor Planning Committees have adopted the Spatial Development Initiatives model following some success stories on the Maputo Development Corridor (Hope and Cox 2015). The 2012 Regional Infrastructure Development Master Plan prioritised the North-South Corridor and the Dar-es-Salaam Corridor in its next spatial development initiative. The Beira Corridor is among the medium-priority corridors which prompted the Government of Mozambique partnering with the World Bank Group to implement the national SDIs in the Beira and Nacala corridors (The World Bank 2016). The World Bank Group's support was requested to build on its previous experience with SDIs to strengthen its spatial planning capacity.

At the regional level, there are no concrete links between urban development in Beira and the rest of the region (Pallotti 2004) that has limited the realisation of Beira's national and regional significance. Regional SDIs were limited to the Maputo Corridor, which could easily attract investment compared to secondary cities such as Beira. Henderson and Kriticos (2018) noted that urban primacy can be problematic for the economic growth of secondary cities.

Further improvements to trade and transport efficiency along the Beira corridor could be achieved by enhancing the coordination of the corridor development. Various attempts have been made, ranging from highly ambitious investment projects to simple coordination, though none appear to have sustainably retained momentum (Byiers et al. 2020). Coordination between countries towards improving customs movement at the Beira Port has remained weak, while coordination and alignment of interests around reducing transport costs appears to be missing. Although several technical reports suggest that harmonisation of border procedures, including customs, is essential to ensure smooth flow of transit cargo, they also admit to the reluctance on either side of the border towards full cooperation (Mureverwi and Gandanga 2015). Although several regional trade corridors such as the Northern Corridor, the Central Corridor, the Walvis Bay Corridor, and the Maputo Corridor are governed or supported by corridor management institutions (CMIs), no such organisation exists in the Beira Corridor (Ntamutumba 2010).

7.10 Conclusion: Releasing Beira's Potential, A National/Regional Urban and Infrastructure Development Agenda

Beira City, the Port, and Corridors connecting to Zimbabwe, Zambia, and Malawi, as well as the northeastern part of South Africa, are important for the development of SADC economies and societies. Unfortunately, the secondary spatial plans of cities and the infrastructure choices they inform are not deliberately connected to

other regional cities in SADC. Essentially, urban development and the benefits arising from the agglomeration effects of urban spaces are not connected to regional economic and infrastructure development. Critical cities like Beira are left to fend for themselves when SADC policymakers could mobilise comparative advantages for these centres to drive the socio-economic development of the regional corridors. The merging of urban and regional infrastructure development will contribute to alternative valuations of shared regional infrastructure linking secondary cities. These are choices that are difficult to leave to private capital. The lack of intra-SADC public sector interventions in investments must be addressed for long-term job and economic growth. The weakening of Beira's potential shows how underdeveloped urban development is at the regional level. Regional infrastructure investment planning is not in sync with urban development objectives. It leaves secondary cities struggling to attract investment against endemic local governance weaknesses. As engines of growth, SADC secondary cities should not be left starved of urban development and governance support.

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Chapter 8
Land Use Planning for Climate Change Adaptation in Secondary Cities: Insights from Chinhoyi, Zimbabwe

Abraham R. Matamanda, Nelson Chanza, Edwin Nyamugadza, and Queen L. Chinozvina

Abstract Climate change is no longer a myth but a reality that requires urgent mitigation and adaptation strategies to curtail its devastating impacts. In urban areas, land use planning plays a critical role in shaping the future of towns and cities, and the same applies with regard to integrating climate change strategies to create inclusive, sustainable, safe, and resilient secondary cities. This study examines the challenges confronting the employment of land use planning strategies aimed at promoting adaptation to climate change in secondary cities in Africa. Chinhoyi, Zimbabwe, is used as a case study. Primary and secondary data sources inform this study, where data was collected through the review of policy documents and interviews with key informants. The study reveals that land use planning in Chinhoyi has yet to integrate climate change adaptation, as is evident from the sprawling of the town. The land use planning process fails to acknowledge the realities of climate change, as is evident from the lack of institutionalisation of climate issues at the local level. We conclude that the existing disconnect between land use planning and climate change adaptation largely emanates from lack of skills, technology, funds, and personnel in the milieu of limited understanding of climate change.

Keywords Climate change adaptation · Secondary city · Land use planning · Chinhoyi

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8.1 Introduction

Currently, cities in Southern Africa are recognised as being increasingly vulnerable to the throes of climate change (Steynor et al. 2020). Evidence of climate change in African cities is shown from the frequent hazards and disasters related to climate in the region over the recent past (Rohat et al. 2019). Many cities in Africa are already experiencing a combination of direct climatic events in temperature extremes and heatwaves, precipitation extremes, violent storms, and sea level rise that lead to flooding and increased extreme weather episodes of storms and cyclones (Scott et al. 2019; Table 8.1).

Table 8.1 Impacts of climate change on the urban sector

Climate hazard	Primary impact	Secondary impact
Increased temperatures	Groundwater depletion Water shortages Drought Degraded air quality	Water shortages Distress migration to cities/towns due to droughts in rural areas Reduced food supply and higher food prices Potential energy price increases Exaggerated urban heat island effect Increased energy demands for cooling Need for additional wastewater treatment Population health impacts
Increased precipitation	Flooding Risk of landslides on hazardous slopes	Reduced food supply and higher food prices Property damage disruption of livelihoods and city/town economies Damage to infrastructure distress migration to cities due to floods in rural areas Displacement and population movement from informal settlements built on steep slope hazard lands Increased vector-borne diseases and waterborne diseases
Sea level rise	Coastal flooding Intrusion of salt water into groundwater supplies in coastal areas Storm surge hazard Coastal erosion	Displacement and population movement from coastal areas Property damage Damage to infrastructure Disruption of livelihoods and city/town economies Reduced food supply and higher food prices Loss of productive/residential land due to erosion
Extreme weather episodes	More intense flooding Higher risk of landslides/ mudslides on hazardous slopes Intense and disastrous wind speeds	Property damage Damage to infrastructure Population health impacts Disruption of livelihoods and city/town economies Reduced food supply and higher food prices

Source: UN-Habitat (2014: 19)

Land use planning helps reduce urban risks associated with climate change by improving prevention and preparedness and facilitating the response and recovery in communities. In planning for climate change, the significant role of land use planning is to reduce the future carbon impact of new developments and improve resilience against natural hazards associated with climate change (Duguma et al. 2014). Land use planning can influence disaster mitigation by developing strategic land use plans and evaluating development applications based on the intended plan (Yiannakou and Salata 2017). The frequency of these climate hazards and disasters compels cities to find ways to deal with climate change, putting climate change adaptation initiatives in perspective.

Climate change adaptation refers to adjustments in natural or human systems in response to climatic events, responses that are intended to moderate harm or harness beneficial opportunities (IPCC 2013). When formulating adaptation plans, authorities must be aware of and understand the nature and severity of these climatic impacts (Berke and Stevens 2016). The irony with climate change is that it presents uncertainty and planning for uncertainty is complicated. Likewise, climate change adaptation is a complex and multilayered process such that Pelling (2011) and Scott et al. (2019) rightfully raise questions about how effectively institutions can adapt to the effects. This question is central to this chapter in investigating the nexus of adaptation to climate change and land use planning in secondary cities. Since climate change is a threat to urban sustainability in African cities, there is a need to explore how land use planning may improve adaptation to climate change. Such attempts can help achieve connected and integrated functional urban spaces instead of having uneven development that is unsustainable, is unsafe, and eventually fails to contribute to national urban agendas (Scott et al. 2019). This study addresses a gap in literature and policy discourse on climate change adaptation in the urban sector of Zimbabwe.

Following this introduction, the next section presents the literature on land use planning for adaptation to climate change in secondary cities. The justification of the study area follows with a focus on the situation of climate change in Chinhoyi. The next section discusses the methodology of the study followed by a presentation of the findings and a discussion. Lastly, the conclusion section presents the critical insights emerging from the study, recommendations, and the areas for further research.

8.2 Land Use Planning for Climate Change Adaptation in Secondary Cities

Governments across the world are increasingly prioritising land use planning for climate change adaptation in the quest to mitigate the effects of climate change. Local governments identify climate-related hazards in their areas and use this information to prepare land use plans, which set the parameters for land use activities (O'Donnell 2019). In this regard, local authorities must be aware of and respond to

climate hazards. Pasquini et al. (2013) and Cuevas et al. (2016) state that climate change adaptation is often stifled by limited information on how to adapt to climate change and a lack of commitment from bureaucrats. It becomes difficult to imagine adaptation to climate change when there is little understanding of this phenomenon. The first task is to promote institutional adaptation because institutions such as local governments are the locus of adaptation planning, funding, and decision-making (Scott et al. 2019). Institutions must understand the severity of climate change and the need for action, as they are the ones who formulate and implement adaptation plans.

Land use adaptation strategies can include efforts to protect critical infrastructure, which can be at risk. Land use zoning, development control, creating buffer zones, and certain restrictions on development can be established to mitigate the effects of climate hazards. When such plans are prepared, there are incidences when their implementation may affect specific individuals and groups, resulting in inequalities, especially when the interests of the elites are advanced. Often it is the poor that are marginalised (Xu et al. 2019) that can lead to conflicts as marginalised individuals disregard the plans, which then makes the climate change adaptation agenda futile. Consequently, planners should foster inclusive planning processes where all stakeholders contribute to the adaptation initiatives to integrate expert knowledge with community needs (Berke and Stevens 2016).

The study situates climate change adaptation in the context of secondary cities in Africa. This focus is necessary because urban scholars in the developing world pay less attention to understanding secondary cities, while most studies focus on megacities and metropolitan regions (Adedire and Adebamowo 2018). Roberts (2014) warns that if secondary cities are to grow and develop sustainably, much greater attention must be paid to investigating, measuring, and understanding the key drivers that underpin their development. Likewise, studies on climate change adaptation have largely focused on megacities with limited attention on secondary cities (Araos et al. 2016; Cohen 2019). The same is true for Zimbabwe, where little attention has been paid to understanding land use planning and adaptation strategies to climate change in smaller urban areas, despite the dominance of secondary cities in the country.

8.3 Background and Justification of the Case Study Area

Chinhoyi is a town located 115 km from Harare, the capital, in the northern-central part of Zimbabwe. Figure 8.1 shows the existing land uses for Chinhoyi and its location.

Chinhoyi is the administrative capital of Mashonaland West Province, and the Municipality which administers the affairs of the town, including land use planning issues. The town is working towards attaining city status (Muonwa 2019). Chinhoyi emerges as a central place with an increasing population (see Table 8.2). At the same time, the economic base of the town has always been administrative. It was

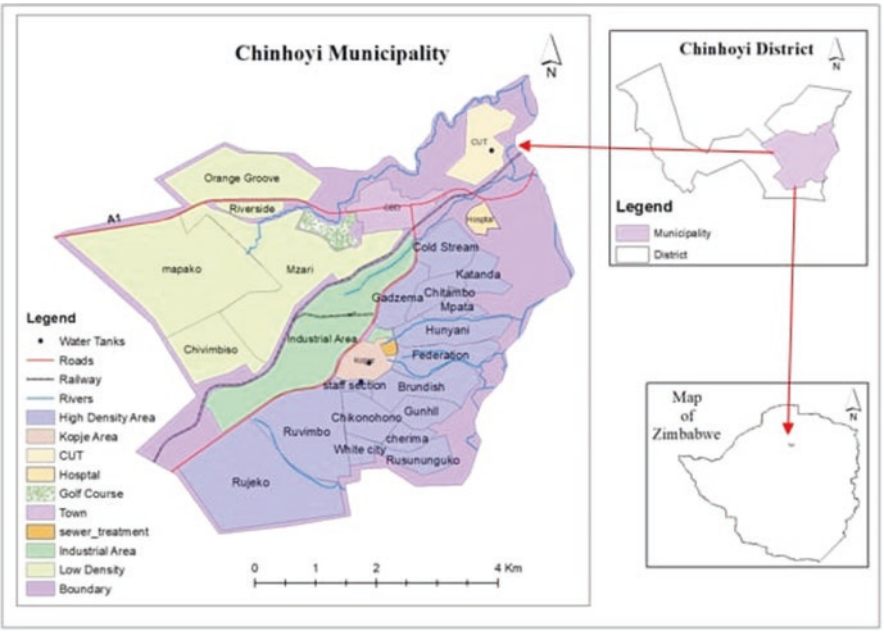

Fig. 8.1 The Land use plan for Chinhoyi. (Source: Developed by the authors)

Table 8.2 Chinhoyi population figures from 1982 to 2017

Census year	1982	1992	2002	2012	2017[a]
Population	24,322	43,054	56,794	77,929	83,550

Source: ZimStat (2013, 2018)
[a]Estimated figure by ZimStat

formerly supported by commercial farming as it is located in agro-ecological region II, a productive agricultural area for tobacco, maize, wheat, soya beans, cattle ranching, and a mining district. The mining sector has been affected by the closure of the Alaska Dolomite Mine and Mhangura Copper Mine.

8.4 Climate Change in Chinhoyi

There are no studies that specifically address the phenomena of climate change in Chinhoyi. Therefore, in this chapter, the inference is made from the generalised climate assessments that cover the whole country. One way to understand the climate system of the study area would be to relate to the agro-ecological regions. In Zimbabwe agro-ecological regions refer to a classification of the country into regions based on rainfall amount received across the region. Specifically, there regions are classified from region I and IIA receiving the highest rainfall,

followed by regions IIB and III receiving medium rainfall and lastly regions IV and V receive the lowest rainfall. Chinhoyi naturally falls in region II with an average annual rainfall of 750–1000 mm (Gambiza and Nyama 2006). Mugandani et al. (2012) point out that this classification methodology is outdated and fails to capture changes and variability in the climate system. It is believed that, due to climate change, the region in which the study area is located has shrunk by 49%, with some places having shifted to a different type of agro-ecological region III (Brown et al. 2012; Mugandani et al. 2012). Overall, the country is becoming drier with increased air temperature warming and a decline in annual precipitation, associated with increased frequency of drought and dry spells (Mukwada and Manatsa 2018) and seasonal rainfall variability (Manatsa et al. 2008). This trend of aridity is projected to worsen and seriously strain water resources and food security (Chanza and Gundu-Jakarasi 2020).

There is evidence of extreme weather events in Chinhoyi (Chigoriwa 2015; Mashizha 2019). Given its location in a hot climate, temperature extremes exert severe pressure on water resources. In particular, the irregular rainfall regime (Brown et al. 2012) affects the replenishment of the Hunyani River, which is the main source of water used to supply the town. Like many other towns and cities in Zimbabwe, Chinhoyi is currently experiencing water shortages, due to a combination of climatic and non-climatic factors. Temperature extremes also mean that the urban population becomes exposed to heatwaves, with poor urbanites likely to succumb to heat stress due to poor health services (Chigoriwa 2015).

Non-climatic drivers of water shortages are mainly related to inadequate and obsolete water resources whose capacity can no longer match the rapid rise in urban population, as seen in Table 8.2. The effects of poor water supply expose residents to waterborne diseases such as cholera and typhoid. In general, the public health situation in Zimbabwe's urban areas has deteriorated, largely due to poor waste management practices (Chanza et al. 2017) and general poor performance of the economy (Chanza et al. 2016). Poor waste management has also been blamed for clogging stormwater drains. Heavy rainfall and violent storms aggravate the occurrence of flush floods in cities. The problem of climate-related diseases like malaria is feared to worsen owing to the geographic spread of mosquitoes that transmit the pathogenic plasmodium (Hartmann et al. 2002). However, opportunities to improve the situation could also be created, provided that national government and local authority officials can integrate climate change into their development plans and strategies.

8.5 Methodology and Research Design

This qualitative study used a case-based research design, an approach designed to understand the unique events about climate change and land use planning in a particular setting. Secondary data was collected from statutes, including the Constitution of Zimbabwe Amendment No. 20 of 2013; Zimbabwe's National Climate Change

Table 8.3 Profile of key informants

Organisation type	Respondents
Chinhoyi Municipality	Town planner
	Head of water department
	Head of Housing and Community Services
Department of Physical Planning (DPP)	Director
Private planning firms	Five planning professionals
Development consultants	Three developers
Movement for Democratic Change	Councillor

Response Strategy of 2014; Climate Policy of 2016; Regional Town and Country Planning Act (Chapter 29:12) of 1976 (RTCPA), and reports from the City of Chinhoyi. Secondary data analysis examined the adaptation strategies to climate change adopted in different land use planning policies. The variables considered water resources management, human settlement planning, transport planning, and institutional responsibilities in climate change adaptation.

Key informant interviews were also conducted with purposively selected key personnel (profiled in Table 8.3) to enhance the validity of the results. The interview questions were framed around the objectives of the study and focused on land use planning strategies formulated and implemented to promote adaptation to climate change while also exploring the enablers of these strategies. In-depth interviews were also conducted with 15 residents to understand their understanding of adaptation strategies and the effects of climate change in their locality. The 15 residents were purposively selected. According to Creswell (2013), a sample of at least ten participants is statistically significant for qualitative studies.

A geographic information system (GIS) was used to map and characterise the changes in land use over time using Landsat thematic mapper with a 30-m spatial resolution images. Available images were filtered by date in Google Earth Engine (GEE) as a way of only retrieving images of a particular year, and the retrieved images were then used to create red, green, and blue (RGB) and true colour composites that are used for easy identification and discrimination of features in the image. A classifier was trained in GEE using training data collected in polygons and some in point form using the GEE point and polygon tools. The Random Forest classifier was then used to classify the images due to its effectiveness in producing accurate results even with fewer training points. Due to the inability of GEE to create map layouts, ArcGIS was used to classify images used to calculate areas in hectares of each land use and land cover (LULC) class available, including vegetation, open space, croplands, and built-up.

Content analysis was used to analyse the secondary data, while thematic analysis guided the analysis of the primary data. The analysis was informed by the steps highlighted by Erlingsson and Brysiewicz (2017) as follows: familiarising with the data through reading the texts and the interview notes; dividing the text into meaning units and subsequently condensing these meaning units; formulation of codes; and development of categories and themes.

8.6 Results

8.6.1 Legislation Framework Guiding Land Use Planning and Provisions for Climate Change

Although there is no direct mention of climate change adaptation in the Constitution of Zimbabwe (CoZ), it can be argued that such provisions are provided for in Section 73 (1), which states that every person has a right to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures (Government of Zimbabwe 2013). Therefore, local authorities are required to formulate strategies that can help spur adaptation to climate change through land use planning. Specifically, Section 276 (1 and 2) empowers local authorities, which include municipalities such as Chinhoyi, on their initiative, to govern the local affairs of the people within the area of its jurisdiction, as well as making by-laws, regulations, or rules for the effective administration of the locality (Government of Zimbabwe 2013). This section does not specify which by-laws, regulations, or rules may be formulated or enacted by the municipality; hence, all issues that pertain to the socio-economic and spatial development of the municipality are part of the mandate. Therefore, Chinhoyi, as a local authority, is responsible for formulating land use planning strategies that adapt to climate change to promote sustainable development in light of the effects of climate change.

The Regional Town and Country Planning Act (RTCPA) is an act that seeks to guide the planning of regions and local areas, to improve the physical environment, promote convenience and general welfare, and control land uses. The RTCPA empowers local authorities to formulate and implement land use plans that guide local development and grant development permits for land use that serve the public interest. Within the scope of these statutory plans, adaptation strategies to climate change must be identified, which should help local areas adapt to the impacts of climate change. An official from Chinhoyi Municipality commented that the provisions of the RTCPA guide land use planning in Chinhoyi are the main piece of legislation that guides land use planning in Zimbabwe. In her remarks, the official explained that through the RTCPA:

> *Although the RTCPA does not mention issues on climate change, the provisions of Part V, Section 22 on development control bring into perspective the formulation of land-use strategies that adapt to climate change.*

This indicates that the nature of this legislation, which continues to guide land use planning, is now outdated.

The Zimbabwe National Climate Change Response Strategy (ZNCCRS) for 2014 is a strategy to establish specific provisions to deal with and address the impacts of climate change in the country. The ZNCCRS recognises changes in land use, such as the development of settlements in urban areas and the encroachment of urban development in forest areas and farmland, as the main drivers of climate

change, calling for the need to integrate climate change in land use planning. A collaborative strategy for adapting to climate change is recommended because the impacts of climate change are spread across different sectors and institutions, which can create discord if efforts are not managed appropriately (Government of Zimbabwe 2014).

Zimbabwe launched the National Adaptation Plan (NAP) in 2015 as a response to the 2010 Conference of Parties, which encouraged both developed and developing countries to prepare national adaptation plans to enable assessment of climate change vulnerability, mainstreaming risks and addressing adaptation. The NAP focuses on adaptation strategies by laying the groundwork and addressing implementation gaps (Government of Zimbabwe 2019). However, this plan remains largely a blueprint and has not been adopted at the local authority level.

The Climate Policy of 2016 was enacted to guide the country in climate change management initiatives that would enhance the adaptive capacity of the national climate change (Government of Zimbabwe 2016). The robustness of the policy can be traced from its development process, which involved consultation with different stakeholders that included local authorities, traditional leaders, scientists, researchers, and the corporate sector. The focus on climate change in secondary cities is contained in Section 3 of the policy, which recognises the vulnerability of both rural and urban areas to climate change. Rural areas are more vulnerable to climate change, but even urban areas such as Chinhoyi are not spared. Guidelines for local authorities include ensuring the adoption of climate-proofed settlement designs and managing demographic challenges associated with migration as an adaptation practice.

8.6.2 Land Use Planning Initiatives and Climate Change Adaptation in Chinhoyi

- *Land Use Development Plans*

Although the need for adaptation to climate change in land use planning in Chinhoyi is recognised, no single land use plan formally establishes the guidelines for adaptation to climate change for the municipality. An official from the municipality commented:

> *We acknowledge the need for land use plans that address climate change adaptation, but this is not the case. We do not have a specific plan that does so. Rather, efforts are made to include these elements when implementing the plans. The problem we have is that the land use plans that guide the development of our town are old and were prepared without acknowledgement of climate change.*

Other key informants reaffirmed these remarks, revealing that the Chinhoyi land use plans do not have provisions for adaptation to climate change. The official further indicated that:

[…] land use planning in Chinhoyi Municipality, like elsewhere in the country, is guided by statutory plans that provide for the accepted land uses within certain parts of the planning areas. The RTCPA is the overarching legislation that guides our affairs in addition to the Chinhoyi Master Plan of 1991.

The adaptive capacity in Chinhoyi thus seems to be compromised by the official land use plans that have not been updated to align with the recent national legislation, for example, the climate policy, NAP, and ZNCCRS that elaborate on climate change adaptation issues. In this regard, the city respondent commented that:

[…] the master plan is no longer applicable in other areas because the Municipality has developed some farms which are outside the master plan boundary because of the ever-growing population.

One of the planners also revealed that climate change adaptation is not an intrinsic part of the land use planning process in Chinhoyi. The planner recounted that:

Although the Environmental Management Act in section 95 mandates local authorities to prepare Local Environmental Action Plans, which may guide issues in climate change adaptation, this has not been done for Chinhoyi.

It also emerged that the main issue in Chinhoyi over the years has been the constraint on water resources. Thus, adaptation strategies in the city must seriously factor in the sustainability of water issues. An official from the water department indicated that the erratic rainfall has affected the system's water supply, which demands that the Municipality be proactive and develop climate change adaptation strategies within the sector.

8.6.3 Realities and Limits to Land Use Planning for Climate Change Adaptation

The Municipality's strategies to integrate climate change adaptation in land use planning include development control through land use zoning and enforcement orders. The respondents pointed out that the increasing hazards related to climate change, especially in water resources, inform the adaptation initiatives to climate change. All but one of the respondents indicated that initiatives for climate change adaptation are implemented in the context of human settlement planning, where the smart city concept is used to inform land use planning in Chinhoyi. It was also revealed that the focus on land use development in climate change adaptation is in sync with the national legislation that recognises land use planning as critical in efforts for adaptation. According to the official, 'the emphasis of the municipality is now on vertical development and compact development'. Alluding to this, an official from the housing services stressed that:

Housing development in Chinhoyi is informed by the compact development concept through, which we envisage to densify land-uses and avoid the sprawling of the town into the neighbouring farms which have an ecological function related to climate change.

Fig. 8.2 Cluster houses demonstrating the implementation of densification. (Source: Authors 2019)

Many proponents laud compact development as being most effective in climate change adaptation initiatives. Evidence of a push for compact development is shown in the cluster houses recently constructed by a private developer (Fig. 8.2). The developer explained:

> *The council informed me of the densification process to adapt to climate change by reducing urban sprawl. Therefore, I decided to maximise the space on my property by constructing the cluster houses. However, compliance to such strategies is not always easy because it is not so clear what the council envisages as we are grappling with a devil (climate change) unknown to many.*

There appear to be land use planning initiatives in Chinhoyi neglecting the integration of public transport needs and waste management to adapt to climate change. One of the planners explained that transport and waste management issues have not been integrated into adaptation plans. He sees this as a major weakness considering that the existing transport system – private cars and taxis – contributes to carbon emissions. From the ZNCCRS, waste management and transport planning are the major carbon emitters, yet the situation in Chinhoyi shows that these issues are not prioritised. The official of DPP admitted that this is a serious flaw. The City has to develop smart mobility initiatives that would assist in connecting the emerging settlements on the edge of the town.

Adaptation strategies are also evident in the energy sector because increasing urbanisation has a toll on energy use, which can be detrimental to climate change, hence introducing solar energy as a low-emission alternative. The use of solar energy has been largely informed by the increasing average temperatures in the study area, while the national legislation has also identified the switch to solar energy as a significant step towards adapting to climate change. According to one of the planners, '[…] already Chinhoyi has warmed up to the low emission development trajectory in the energy sector by adopting solar traffic and street lights'. Chinhoyi University of Technology (CUT) partners with the municipality through initiatives on solar energy use for street lights and traffic lights. Residents also indicated an increasing use of solar energy, as shown in Fig. 8.3. Ironically, there is no incentive for residents to switch to solar energy as one resident stated that:

> *There is [a] need to upscale these initiatives to cover households and institutions through some form of incentives in which adopters of solar-powered geysers and other appliances could get tax incentives while the excess energy from these individuals may be diverted to the national grid.*

Fig. 8.3 Use of solar energy and water storage tanks at the home level. (Source: Authors 2019)

Regarding water issues, the council has rationed the water supply to residents. Adaptation strategies seek to protect open spaces in the town, especially farmland and forests on the edge of Chinhoyi and the floodplain, as these impact the hydrological cycle and water situation for the town. The official of the water department stressed that no efforts have been made to build dams to store water, as the council depends on the Hunyani River. Financial challenges were identified as the limiting factor to undertake such infrastructure development considering the high costs of dam construction. Water rations have been exacerbating water shortages among residents who lamented the difficulties of accessing water and the use of storage tanks by households that can afford it, as shown in Fig. 8.3. According to a planner, '[…] the drilling of boreholes is not regulated, which shows a shortcoming with the adaptation strategies by the Municipality which does little to manage the hydrological cycle'.

Planners and a Department of Physical Planning (DPP) official indicated that efforts to zone land uses and development control to protect high-risk areas such as floodplains, hydrological cycle management, and farmland are often compromised by the malpractices and behaviour of the communities, including illegal mining. These efforts confirm the provisions of national legislation, especially the climate policy that recognises some community practices and land use activities that frustrate adaption to climate change, for example, illegal mining by *makorokoza*. Municipal authorities are also blamed for allocating residential plots in some of these spaces. All key informants unanimously confirmed that these malpractices are widespread. They cited the case of residential development in the floodplain of the Hunyani River as an emerging practice. The pressure for urban land is believed to emanate from shortages in housing infrastructure. The demand for housing is reportedly huge and forces the homeless to develop housing in any available space. The Municipality official stressed that:

> *Although the Municipality envisages a compact development characterised by urban greening, there has been some growing development of residential land-use on farming land. This situation complicates efforts in integrated land-use as more land is taken up for residential development.*

Residential developments result in some deforestation as residents clear the land for housing development (Fig. 8.4). Figure 8.4 shows how vegetation has gradually been replaced with the built area between 1990 and 2020. Also, the increasing concentration of cropland amid the built environment shows how residents are increasingly engaged in farming activities in the city. Most residents pointed out that they engaged in some malpractices, such as streambank cultivation and deforestation due to poverty and the need to support their livelihoods. One of the residents lamented that:

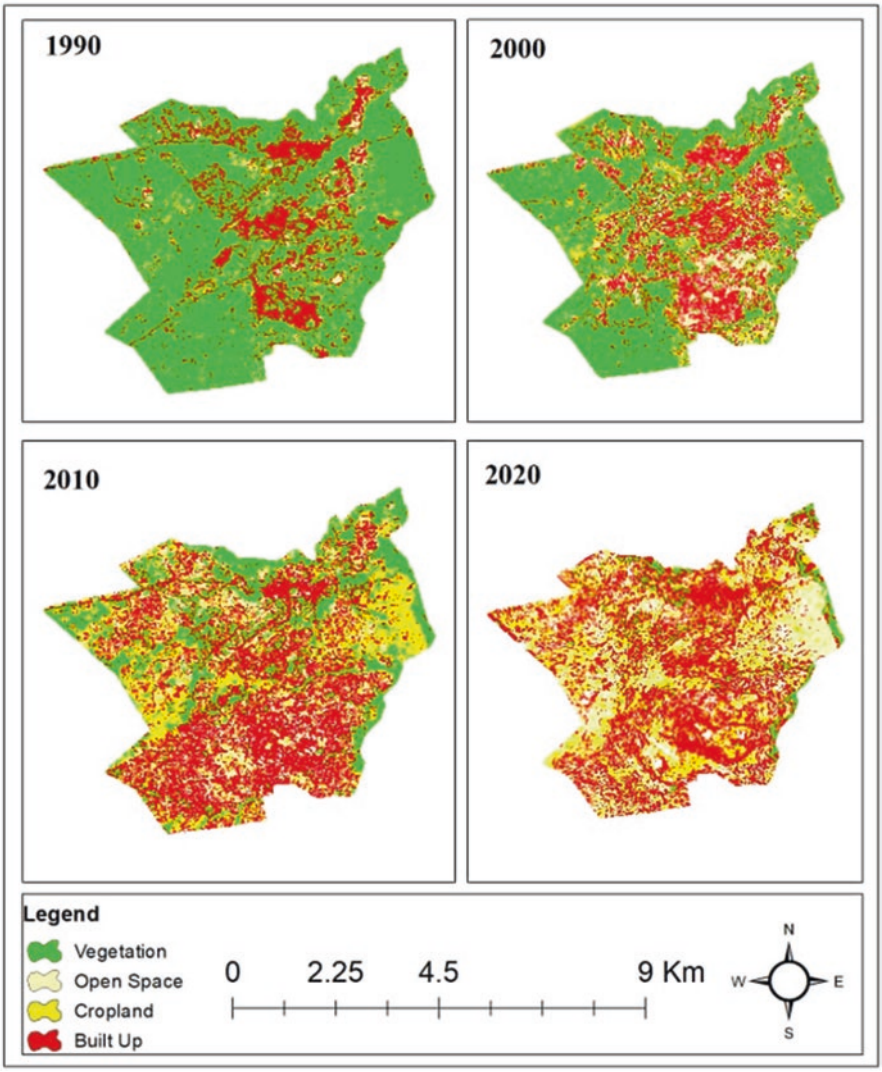

Fig. 8.4 Land use change in Chinhoyi between 1990 and 2020. (Source: Authors 2020)

> *We cannot die of hunger and fail to cultivate the farmlands because of climate change. The increasing electricity tariffs also forces us to use firewood as an alternative energy source.*

Some residents have also identified politics as being responsible for breaching the development controls as some politicians are accused of allocating plots to their supporters in restricted areas.

The councillor explained that there has been a shortcoming in council initiatives, which has made decisions without engaging the residents. This was confirmed by a respondent who commented that:

> *The council makes decisions without consulting us. I am not even aware of these initiatives to adapt to climate change. Yes, we have been experiencing some droughts over the past years that have been affecting the water supply in the town.*

The limited use of technology in land use planning in Chinhoyi stifles efforts to adapt land use planning to climate change. According to an official from the Municipality, 'the lack of infrastructure and technology such as GIS and drones in land use planning makes it difficult for the Municipality to forecast and map the best practices in climate change adaptation'. Another official lamented that 'there is no GIS department in the municipality, let alone a climate change unit that informs climate change adaptation'. This shows that adaptation to climate change remains marginal in land use planning due to limited capacity in the form of human expertise, technology, and infrastructure to spearhead adaptation strategies.

There is evidence of institutional collaborations related to climate change adaptation in land use planning. An official highlighted that the local authority works in consultation with the Environmental Management Agency (EMA) and the DPP on matters related to land use planning. The EMA is a regulatory body that focuses on environmental protection, including climate change issues. The Municipality engages with the EMA in the preparation of planning schemes to ensure that there is limited harm to the environment from proposed developments.

Despite institutional collaboration, another municipal official indicated instances where there are some overlaps in institutional roles. This situation was largely attributed to 'politics of difference' and 'some grey areas in the legislation'. An example was given in which some officials of certain institutions or departments try to exercise their authority and undermine others. An official from the Municipality complained that:

> *Some officials from the DPP feel they have more powers than the officials from the municipality, a situation which complicates decisions relating to climate change adaptation.*

The same was noted within the municipality, where some internal bureaucracies tend to stifle any meaningful engagement among departments, which seemingly work in isolation, yet climate change adaptation is a cross-cutting issue. An official cited the water department as an example where engineers tend to be too technical and fail to realise the social aspects required for integrated planning.

Although the land use planning process is consultative, an official from the municipality bemoaned that the consultation process is too long as decisions take time to be made, especially when it comes to the approval of the layout plans. In this

way, efforts to incorporate new proposals, including adaptation to climate change, become complicated, as some of the bureaucrats frustrate initiatives that do not bring immediate gains. Most of the residents interviewed revealed that they are still struggling to understand the concept of climate change. Such ambiguities in understanding climate change complicate decision-making as certain individuals and groups do not understand the issues. Land use activities by residents driven by poverty and the need to satisfy their immediate needs require the municipality to conduct research and engage the communities through some outreach programmes to educate and raise awareness among the residents of climate change issues.

8.7 Discussion

The results of this study show that adapting land use planning to the growing challenges of climate change is no longer an option, but an urgent imperative. In this discussion, we argue that existing land use plans and policies are not yet fully integrated with climatic issues and can be best described as being at odds with current and projected climatic risks for Chinhoyi. If properly adopted, embracing both mitigation and adaptation should help reduce the high vulnerability to the climatic disturbances highlighted in this study. For Chinhoyi, addressing climate change risks appears quite vexing due to both climatic and non-climatic drivers of vulnerability reported by the IPCC (2013). The non-climatic drivers identified in this study are a combination of vulnerable populations that are largely a result of poor planning and manifesting through informal land and poor housing development; infrastructure limitations, which are outdated and inadequate to serve the rapidly growing population; and poverty associated with the general macroeconomic challenges in the country. In view of these challenges, mainstreaming climate change adaption and mitigation as a central strategy is critical since it can comprehensively address the broad socio-economic development challenges while simultaneously addressing climatic risks.

The existing development challenges for Chinhoyi are not insurmountable. Given the increasing recognition of climate change as a development issue, largely reflected at the policy and institutional levels, the city can leverage the supportive policy framework to embark on climate-sensitive urban planning and development. The National Climate Policy and the Zimbabwe National Climate Change Response Strategy, in particular, clearly spell out the need to mainstream climate change in the urban development sector. The main barriers could be related to the budgetary and skills constraints identified in this study and corroborated by Chanza (2018). One way to address such constraints would be to engage in collaborative projects through horizontal links with the private sector, especially concerning waste management and energy development. Climate-sensitive planning presents an opportunity to unlock climate funds to support the poorly resourced local authorities. The private sector can enter energy development projects as independent power producers (IPPs). These interventions can help stimulate the creation of jobs and

entrepreneurs, increase energy security and supply, and enable skill development and technology transfer.

Given the existing smart and compact development strategy that the city has embraced, mitigation and adaptation potentials abound. In the housing sector, climate-compatible development should focus on densification of current and future housing projects. This would minimise the costs of expanding road, water, energy, and sewage infrastructure. For example, mitigation benefits can be achieved in the transport sector through reducing commuter distances. The city should also adopt both hard and soft adaptation trajectories as indicated by Sovacool (2011). Hard adaptation paths can take the form of retrofitting existing housing and road infrastructure while using new technologies in the construction of new urban infrastructure to make it resilient to climatic events. Soft adaptation pathways can be through review of building codes, urban by-laws, and public education on climate change. The city should also strengthen its capacity to manage urban sprawl and informality and move towards sustainable human settlements. This strategy is highly recommended by the UN-Habitat (2014).

It is also important to note that climate change offers both opportunities and constraints in secondary cities. Development opportunities abound when cities are able to harness the mitigation and adaptation potentials that come with climatic interventions. The broad development sectors of energy, health, water, food, infrastructure, and waste present opportunities for cities appropriately respond to climate change.

Regarding the water sector, municipalities can develop water storage infrastructure, such as dams capable of storing large volumes of water to withstand drought years. This intervention may bring in private players to provide funds for such large investments. The water in such dams can be used to develop clean energy and help address the energy crisis associated with climate change. In Zimbabwe, secondary cities can take advantage of the enabling policy environment that supports public-private partnerships. The increased availability of water can also support agricultural activities in and around the city to increase agricultural production and improve food security. Cities may also consider minimising water usage and efficient water use for domestic, institutional, and industrial users by introducing smart water meters and pre-paid billing services. These initiatives can be supported by education and public awareness to promote climate-sensitive behaviour in water use. With increased water security, current problems in disease outbreaks can be alleviated.

8.8 Conclusion

To facilitate the mainstreaming of climate change adaption discussed in this study, reducing the barriers in the existing institutional bureaucracy and silo mentality that characterise public institutions in Zimbabwe will be essential. One way of addressing this problem would be through collaborative engagement in existing and future

urban projects. Links with research institutions and universities could also address the technology and skill gaps discussed in this study. Most universities have since revised their curricula and programmes to incorporate emerging development threats of climate change and disasters. Local authority-university linkages would be one sure way of translating the rhetoric into practice.

Overall, the success of the mitigation and adaptation strategies highlighted here depends on public education and awareness of climate change. Although it is demonstrated at the national level through climate policy regimes, this knowledge has yet to sufficiently cascade to local authority levels. It is also critical to note that knowledge should not remain theoretical, but should be demonstrated through existing climate-sensitive project development.

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Part IV
Urban Service Delivery and Governance

Chapter 9
The Intricacy of Water and Sanitation Management in Masvingo City, Zimbabwe

Tazviona Richman Gambe and Thomas Karakadzai

Abstract Effective water supply and sanitation management remains an uphill task in most cities in the South, especially in Zimbabwe. Using a qualitative methodology, this chapter explores the different strategies for improving the water supply and sanitation management system in Masvingo City. Data were collected from water and sanitation experts directly and indirectly involved in water and sanitation issues at city and district levels. Data analysis was carried out through thematic and content analyses. The study found that the management of water supply and sanitation in Masvingo City is increasingly threatened by institutional weaknesses, unfavourable water governance structures, and financial instability. The operational water and sanitation coordination framework in Zimbabwe is creating confusion, tensions, and overlaps in the water and sanitation sector, especially at the district level. The separation of urban and rural water and sanitation management is a weakness that sets up water and sanitation institutions for failure. The study proposes several strategies that can improve water supply and sanitation management: the amalgamation of rural and urban water supply and sanitation governance structures; the promotion of inclusivity, concerted efforts, and shared responsibility among water and sanitation stakeholders; and the promotion of 'resident patriotism' as a way of improving the city's revenue base.

Keywords Inclusivity · Institutional resilience · Sanitation · Water finance · Water governance

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9.1 Introduction

The quest to improve water supply and sanitation has become a global concern as the number of people who lack access to safe managed drinking water and sanitation services is approximately 2 billion and 3.6 billion, respectively (World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) 2021). Unsustainable water use and management patterns, high levels of pollution, and inadequate water infrastructure are some of the factors that aggravate water scarcity in terms of quantity and quality (Cooley et al. 2014). Due to this, the lack of access to water, sanitation, and hygiene (WASH) at the global level is associated with approximately two million annual deaths (World Health Organization (WHO) 2019).

Although the global population that lacks access to basic drinking water services decreased from 1.123 billion to 771 million between 2000 and 2020, sub-Saharan Africa (SSA) experienced an increase from 350 to 387 million people in the same period (WHO and UNICEF 2021). Consequently, SSA accounts for 53% of the global WASH-attributable deaths (WHO 2019). The lack of improved sanitation is the main source of contamination as faecal matter from open defecation usually finds its way into surface water bodies, the widely used source of drinking water in low-income countries (Johnston et al. 2011). In Zimbabwe, water supply and sanitation standards are still low, and coverage is higher in urban than rural areas (Bayu et al. 2020; Nhapi 2015). The management of water and sanitation is governed by a national water and sanitation coordination framework, shown in Fig. 9.1.

The central institution in this framework is the National Action Committee (NAC), which coordinates all water and sanitation issues in rural and urban areas (Nhapi 2015). However, most cities in Zimbabwe have a history of acute water shortages and poor sanitation, especially Harare, Bulawayo, and Chitungwiza (Gambe 2013a, b, 2015a, 2019; Musemwa 2010; Nel and Berry 1992; Nhapi 2009; Zvobgo and Do 2020). Poor water governance is the common challenge behind water woes. The lack of adequate coordination of water utilities has affected water supply and sanitation (Nhapi 2015). The water crisis in most urban centres is the result of political interference in municipal water and sanitation governance decisions (Musemwa 2010).

Masvingo is one of the districts in Masvingo province and is made up of Masvingo City (Fig. 9.2), Masvingo Rural, Mashava, and Renco Mines (Musingafi et al. 2015). Masvingo City has an estimated population of 87,886 people (Zimbabwe Statistical Agency (ZIMSTAT) 2013). Although Masvingo City Council (MCC) manages water and sanitation in the city area, Masvingo Rural District Council (MRDC) has responsibility for the areas outside of the city boundaries (Musingafi et al. 2015). However, the suburb of Victoria Ranch, in terms of legal boundaries, is under MRDC, but the water and sanitation issues of the suburb are co-managed with MCC.

This chapter explores the strategy options for enhancing the water supply and sanitation management systems in Masvingo City. The specific research questions are (i) What is the current state of water and sanitation provision in Masvingo City? (ii) How does the relationship of MCC, its development partners, and government institutions at the district level influence water supply and sanitation management

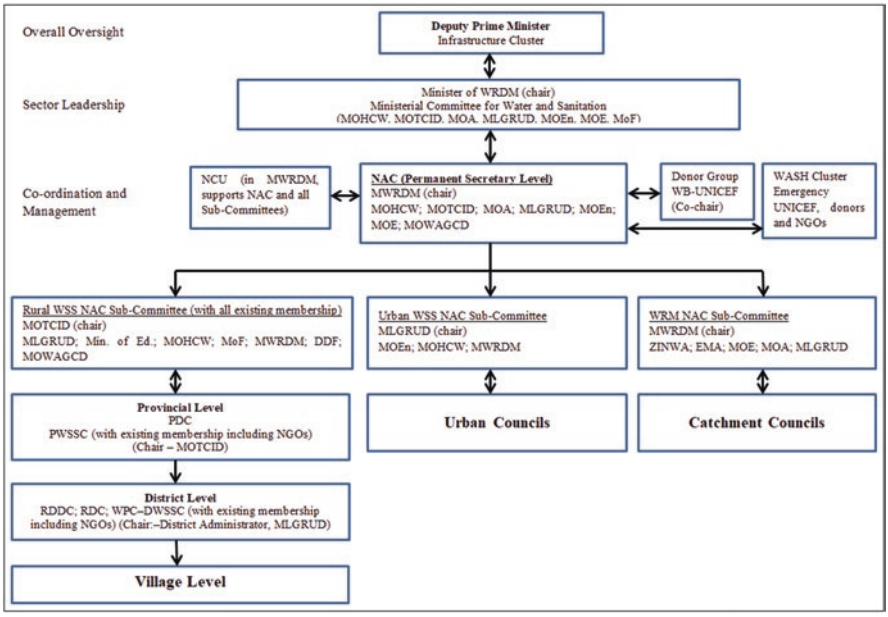

Fig. 9.1 Water and sanitation coordination framework in Zimbabwe. (Adapted from the Ministry of Water Resources Development and Management (MWRDM) 2010)

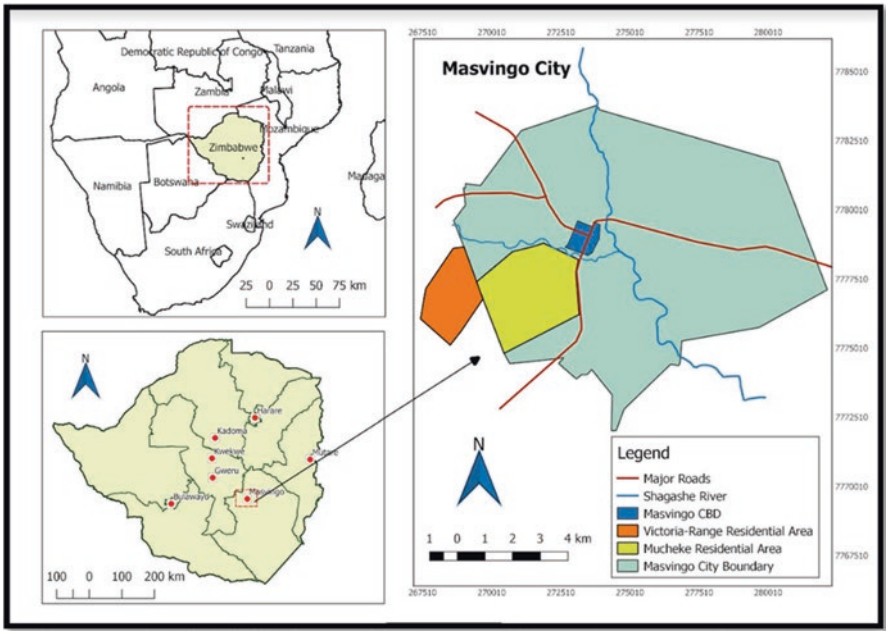

Fig. 9.2 The study area. (Source: Created by authors 2022)

in the city? (iii) What are the strategy options available to address the weaknesses of the institutions involved in water supply and sanitation management in Masvingo City?

To address the stated research questions, this chapter adopts a qualitative methodology and draws from the experiences of water and sanitation experts involved in the management of water and sanitation in Masvingo City. This article recognises that effective water and sanitation management practices, institutional resilience, and reliable financing mechanisms are key factors that can improve access to water and sanitation services in countries in the South. To promote a common understanding, the chapter proceeds by briefly reviewing the literature on water governance, institutional resilience, and water and sanitation financing. The governance-resilience-financing nexus needs to be enhanced as a way of improving water and sanitation management in Masvingo.

9.2 Conceptualising Water and Sanitation Development

9.2.1 Water Governance

Despite various and often contesting conceptualisations of governance, there is a consensus that governance is broader and more inclusive than government as it includes both state and non-state actors (Akhmouch and Correia 2016; Araral and Wang 2013; Castro 2007; Cleaver and Hamada 2010; Hill 2013; Rogers and Hall 2003). Since water is central to social and economic development, its sustainable use must be guided by adequate and inclusive policies (Akhmouch and Correia 2016). Resilient institutions or structures are required to balance varied and competing interests in the provision and management of water and sanitation services. Water governance can be defined as 'the range of political, social, economic and administrative systems that are put in place to regulate the development and management of water resources and the provision of water services at different levels of society' (Global Water Partnership 2002, p. 14). Therefore, the formulation and implementation of water and sanitation policies require the participation of different actors in society that range from civil society, politics, government at all levels, and the private sector (Akhmouch and Correia 2016; Jiménez et al. 2020).

Governance can be classified as either good or poor, although the distinction is usually normative (Akhmouch and Correia 2016; Franks and Cleaver 2007; Hill 2013; Rogers and Hall 2003). Governance is classified as good if fairness and inclusion constitute the core of the process of achieving results in a society (Akhmouch and Correia 2016). The main dimensions of good governance include effectiveness, inclusiveness, efficiency, accountability, participation, transparency, predictability, responsiveness, and trust and engagement (Rogers and Hall 2003). Poor governance, which is common in poor countries in the South, is associated with the failure to fulfil these dimensions (Araral and Wang 2013) and generates superfluous bureaucratic systems that fail to address the needs of citizens (Akhmouch and Correia 2016).

The concept of water governance involves the design of socially acceptable policies and institutional frameworks and how these are supported through the mobilisation of social resources (Rogers and Hall 2003). This has important implications for institutional resilience in two ways. First, the design of institutions determines whether they remain relevant over a period of time. Second, institutions must be socially acceptable and supported by different stakeholders at various levels if they are to continue to meet their mandate. We adopt these two perspectives in the analysis of the water supply and sanitation institutions in Masvingo City.

9.2.1.1 Institutional Resilience

The concept of resilience is broad and widely debated in the literature (Breathnach et al. 2014; Martin 2012; Martin et al. 2015; Saikia et al. 2022; Simmie 2014; Simmie and Martin 2010; Sjöstedt 2015; Tóth 2015). Notwithstanding its wide application in various disciplines, the notion has its origins in the ecological discipline (Martin 2012; Sjöstedt 2015; Tóth 2015). A derivative of the Latin word *resiliere*, resilience in simple terms means to leap back or rebound (Martin 2012; Simmie and Martin 2010; Tóth 2015). Of all the different perspectives resilience can take, including engineering and ecological, this study adopts the adaptive evolution approach (Wink 2012). This approach is derived from the theory of complex adaptive systems and stresses the capacity of a system or institution to reconfigure and adapt its structure to overcome different shocks and stresses (Martin 2012; Simmie 2014).

Two perspectives adopted under evolutionary resilience are generalised Darwinism and path dependence. The former has an emphasis on diversity being the linchpin of resilience, while the latter links resilience to the development and history of a system or an institution (Simmie and Martin 2010). In light of these two perspectives, institutions with a diverse structure have better chances of adapting to different types of transformations. Similarly, institutional trajectories influence institutional resilience. The way an institution is formed and envisioned determines a certain path in which the institution will evolve (Sjöstedt 2015). Therefore, the development and history of an institution can have lock-in effects that result in its growth or decline (Simmie and Martin 2010).

Institutional resilience can be defined as the ability of institutions to adapt to both endogenous and exogenous changes and to continue to effectively fulfil their functions over a period of time (Aligica and Tarko 2014; Barin Cruz et al. 2016; Steinberg 2009; Young 2010). For the purposes of clarity, we perceive institutions as 'synonymous with formal bodies and organisations (e.g., national ministries, sub-national agencies, multi-stakeholder management institutions, and planning departments; and the policies, plans, and other actions carried out by those organizations)' (Hill 2013, p. 18). In the context of this study, we therefore define institutional resilience as the ability of water supply and sanitation management institutions (such as local authorities, government institutions/committees, non-governmental organisations (NGOs), and water point committees) to continually provide affordable water and

sanitation solutions to communities within their areas of jurisdiction. Institutions should at the minimum be able to provide water and sanitation services that meet the minimum acceptable quantity and quality standards. Institutional resilience therefore borders on the ability to create institutions that are able, over the long term, to continually and effectively address the challenges faced by society (Steinberg 2009). This means that institutional design is an important aspect of institutional resilience (Barin Cruz et al. 2016).

Although resilience has become a catchword, its application in practice has been limited (Butler et al. 2016; Saikia et al. 2022). Operationalising resilience is difficult, and this emanates from a lack of a commonly agreed definition and approach to its analysis (Butler et al.; Johannessen and Wamsler 2017; Laitinen et al. 2020; Sensier et al. 2016). Notwithstanding the difficulties mentioned above, we adopted a practical approach that analyses institutional resilience by evaluating diversity in the composition of institutions, the nature of their design/creation, and whether institutions are continuously fulfilling the purpose for which they were created. This is important because institutions must be resilient to be able to provide an uninterrupted supply of water and sanitation services (Laitinen et al. 2020). The shocks threatening institutions include political interference, an acute decline in municipal revenue, and an unprecedented rate of urbanisation. These shocks impede the ability of water and sanitation institutions to offer water and sanitation solutions adequately and continually to residents within their areas of jurisdiction.

Most studies that adopt the notion of resilience in urban water supply and sanitation are more inclined towards the resilience of urban water systems or urban water services (Butler et al. 2016; Johannessen and Wamsler 2017; Laitinen et al. 2020; Saikia et al. 2022), although others cover both the governance and urban water system perspectives (Saikia et al. 2022). Owing to this, various frameworks (Saikia et al. 2022), approaches (Butler et al. 2016), and key principles (Johannessen and Wamsler 2017) have been propounded to improve water resilience, the ability of both stakeholders and water systems to adapt to different types of shocks and stresses (Saikia et al. 2022). Our study departs from those previously highlighted: it is not inclined towards urban water systems but on the resilience of institutions/stakeholders that operate in the water and sanitation sector. This focus is motivated by the fact that even where water resources are available in abundance, water scarcity persists in cities in the SSA due to weak institutions, poor governance systems, and inadequate financial resources. Thus, improving the governance-resilience-finance nexus can improve water supply and sanitation services.

9.2.2 Water Supply and Sanitation Financing

From global to community level, funding in the water supply and sanitation sector is limited (Cooley et al. 2014). However, large investments are required in the renewal and upgrading of the water and sanitation infrastructure (Romano and Akhmouch 2019). The investments required range from the protection of freshwater resources to the adequate provision and maintenance of water and sanitation

infrastructure (Organisation for Economic Co-operation and Development (OECD) 2011). The low revenue collection efficiency characterising cities in low-income countries has a negative implication on the management of water supply and sanitation (Romano & Akhmouch). This affects the progress towards achieving SDG 6, which seeks to ensure the availability and sustainable management of water and sanitation for all. In addition to inadequate financing, the achievement of SDG 6 also faces challenges that include the increase in the world population and the growing scarcity of water originating from climate change (Alaerts 2019). This calls for an inclusive dialogue at all levels of water and sanitation management that involves different types of stakeholders (Alaerts 2019).

The financial resources required to meet national water and sanitation targets are scarce in African countries (UN-Water Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) 2017). The main sources of finance are households (tariffs and self-supply solutions), government (mainly taxes), external sources (aid and grants), and repayable finance (mainly loans) (GLAAS 2017; OECD 2011). There have been growing calls for the private sector to participate in water and sanitation provision (Alaerts 2019; Johnston et al. 2011). However, the main challenge is the weak creditworthiness of water authorities, which increases the risk that the lender fails to recover capital (Alaerts 2019). Furthermore, water is treated as a right in some African countries, including Zimbabwe and South Africa (see Gambe 2015b; Morinville and Rodina 2013; Ziganshina 2008), and its 'commercialisation' is not widely supported. This discourages the active participation of the private sector in the provision of water supply and sanitation.

The financial resources available for urban and rural sanitation programmes in Zimbabwe constitute less than 50% of what is required (GLAAS 2017). In 2016, approximately 30% of WASH funding was sourced from the government, with the remaining 70% provided by external investors in the form of aid and grants (GLAAS 2017). This is a serious weakness in terms of resilience thinking because, if the central government fails to provide financial resources and external funders withdraw from WASH activities, then local authorities struggle to manage the situation. Diverse sources of funding are encouraged in resilience thinking so that if one dries up, others will cover the gap, and thus the situation becomes manageable. The overreliance on the central government and external funders without giving enough room for the private sector's participation in the water and sanitation sector (Chigonda and Chazireni 2018) is one of the anomalies that need to be rectified.

9.3 Methodology

In this study, we adopted a qualitative methodology that involves the combined use of a workshop and in-depth interviews as data collection tools. Workshops are increasingly regarded as a promising tool for data collection (Ahmed and Asraf 2018; Ørngreen and Levinsen 2017). Participants in a workshop, usually selected by purposive sampling, can share rich data that can be useful in a study (Ahmed and Asraf 2018). Therefore, this chapter draws on the discussions that occurred during

a water and sanitation reflection workshop held in Masvingo City in October 2020. The workshop was organised and hosted by three organisations: Dialogue on Shelter for the Homeless Trust (DoS), Masvingo City Council (MCC), and the Zimbabwe Homeless People's Federation (ZIHOPFE). One of the researchers played an important role in organising the workshop. The focus of the workshop was to create a platform where different stakeholders come together to discuss water supply and sanitation challenges in Masvingo City and how they could be addressed.

Purposive sampling was used to select participants for the workshop. The targeted participants were institutions that are directly or indirectly involved in the management of water supply and sanitation in Masvingo City. MCC is the main institution responsible for water supply and sanitation services in the city. However, it operates in conjunction with partners at the community, city, and district levels. Consequently, 11 institutions were selected: DoS; MCC; ZIHOPFE; Masvingo ward councillors; District Water and Sanitation Sub-Committee (DWSSC); Young People's Federation (YPF); District Development Fund (DDF); Ministry of Women Affairs, Community, Small and Medium Enterprises (MWACSMED); Agricultural Technical and Extension Services (AGRITEX); Christian Care Zimbabwe (CCZ); and Great Zimbabwe University (GZU). Each organisation was asked to send experts in water and sanitation issues to the workshop. As a result, a total of 43 participants attended the workshop (see Appendix for the detailed list).

To maintain the overall control of workshop proceedings, one of the researchers was the main facilitator, while the other was not only a part of the organising team but also a participant. Therefore, we both acted as participant observers throughout the workshop and had the opportunity to probe in circumstances where participants provided inadequate data or incomplete responses. The workshop facilitation and participation arrangement gave us some control over the issues discussed. We had an opportunity to persistently observe the participants and assess the credibility of their contributions. Participants were advised beforehand that the workshop was to be recorded in video and audio. Consent was therefore acquired verbally. Two organisations among the co-hosts (DoS and MCC) were responsible for video recording and taking minutes, while the facilitator handled audio recording. A comparison of recorded materials and minutes from three different sources improved the comparability and credibility of the data that were collected.

We also conducted in-depth interviews with experts from institutions directly involved in water supply and sanitation issues in Masvingo City, which include MCC, DoS, CCZ, DWSSC, ZIHOPFE, and water point committee leaders, representing Garikai, Mucheke Hostels, Nemanwa unplanned settlement, and Victoria Ranch in Masvingo Rural. Since the interviews were conducted as a follow-up exercise, their purpose was to complement and verify the data collected during the workshop. This exercise gave us the opportunity to fill in data gaps and look for more data from experts in a different setting. We analysed the data using thematic and content analyses. Variables targeted in the analysis include political interference in the design and operation of water supply and sanitation institutions, the diversity of stakeholders in the institutions, and continuity in the delivery of water and sanitation solutions to communities. Politics was regarded as one of the variables because

it plays a major role in institutional design and ultimately in institutional resilience (Sjöstedt 2015; Steinberg 2009). This guided our analysis as the design of resilient institutions should involve making them receptive to contributions from different political views and actors. If institutions are dominated by a single political party, their resilience becomes vulnerable, especially in circumstances that involve regular changes in political leadership (Steinberg 2009).

In our analysis, we also treated diversity as one of the key factors that influence institutional resilience. Water and sanitation institutions should include actors from multiple governance levels, that is, from national, provincial, district, city, and even community levels (Steinberg 2009). This promotes inclusivity in the water and sanitation sector. Therefore, enhancing the resilience of an institution requires sustaining its mission and maintaining an arrangement that enables continuity in terms of function and the fulfilment of the goal.

9.4 Findings

The study found that Masvingo City has a daily water demand of approximately 45 megalitres despite its capacity to pump 27 megalitres. To supplement the water supply in the city, 39 functional boreholes were installed that use the lift pump system. However, MCC indicated that lift pumps are not very efficient because their water discharge is not directly proportional to the amount of energy required to pump the water. This has motivated the need to replace lift-pump systems with those that are solar powered. The provision of sanitation in Masvingo City is mainly through a reticulated sewerage system; however, there are a few areas that are not yet connected. These areas are currently using ecological sanitation (eco-san) toilets whose construction and maintenance are managed by the MCC building inspectorate.

The management of water and sanitation in Masvingo has benefitted from the concerted efforts of MCC, its development partners, and local communities. This partnership is responsible for the co-production of water and sanitation data through community- and city-wide level profiling. The partnership has also created a platform to share ideas and proposals for water and sanitation development without restrictions. This development eased a tight and bitter relationship that existed previously between MCC and the communities studied. The improved relationship became a critical tool in mobilising project partners around targeted water supply and sanitation interventions that include the construction of the Garikai Market pay toilet, the upgrading of Mucheke hostels, and the establishment of the Masvingo City Fund.

The study revealed that the provision of water and sanitation services in peri-urban settlements is still a tall order for both MCC and its neighbouring local authorities. An example is Victoria Ranch, a low-income settlement within the geographical boundaries of MRDC that was developed primarily through self-help housing schemes. Victoria Ranch is therefore not connected to water and sewerage reticulation systems. Consequently, water and sanitation are provided through

communal boreholes and eco-san toilets. This is almost the same scenario in the Garikai and Nemanwa communities, although they do not have eco-san toilets. The sanitation situation in these two communities is dire as open defecation is widespread.

Water point committees (WPCs) are actively involved in controlling and managing various communal water points in the city. The leaders of the four WPCs that operate in settlements experiencing acute water and sanitation shortages (Victoria Ranch, Mucheke Hostels, Garikai, and Nemanwa) indicated that they are responsible for ensuring that residents access water and sanitation facilities in an orderly manner. They also supervise how residents use water and sanitation facilities to avoid infrastructure vandalism. One WPC member indicated:

> To avoid the vandalism of communal water infrastructure, we lock our water points and access is prohibited during the periods we experience scheduled water supply disconnections. Members only regain access when water supplies are restored.

It was also found that minor maintenance and repair works are coordinated by the WPCs by mobilising residents to contribute towards such work. Only major repairs are reported to and addressed by MCC.

In addition to working with WPCs in different suburbs, this study found that MCC also works with NGOs such as DoS, CCZ, and ZIHOPFE to improve water supply and sanitation. The partnership agreement between MCC, DoS, and ZIHOPFE has implemented a variety of water and sanitation projects in the city. MCC had this to say:

> With the assistance of our development partners, we managed to construct the Garikai Market pay toilet, upgrade Mucheke Hostels (two blocks occupied by approximately 30 households) and renovate two residential blocks at Mucheke Hostels. Organisations such as CCZ made a financial contribution towards the purchase of sewer de-blocking equipment, donated a water-testing kit, contributed towards the rehabilitation of public toilets, conducted capacity building trainings targeting WPCs, and donated items such as water containers in a bid to promote community hygiene.

To improve water supply and sanitation financing, MCC made a commitment to contribute funds in each annual budget to the improvement of the water and sanitation infrastructure in the city. Although MCC has managed to honour this commitment, the funds are still below the amount required to construct, renovate, and maintain the water and sanitation infrastructure in the city.

At the district level, we found that MCC works in partnership with the District Water and Sanitation Sub Committee (DWSSC), although it is not mandatory to do so. The water and sanitation coordination framework in Zimbabwe (see Fig. 9.1) clearly shows that urban councils are supposed to report directly to the NAC Urban Water and Wastewater Subcommittee. However, this has created coordination challenges at the district level. As the chair of DWSSC, the District Administrator's Office (DA) noted:

> Development partners that wish to work on WASH issues in the district should first approach the DA's office and register their intention. The DWSSC will then advise the concerned local authority of the NGOs' intentions to work in its area of jurisdiction. This has not been happening and there is need to correct that. Over the years, we have been working mainly with MRDC and it's not surprising to notice that there may be a lot of development partners working in Masvingo Rural than Masvingo City.

These sentiments show the complexities associated with Zimbabwe's water and sanitation coordination framework. Development partners who intend to work in the WASH sector in Zimbabwe usually approach the National Action Committee (NAC). At this level, they are directed to work in certain provinces, depending on the need. The Provincial Water and Sanitation Sub-Committee (PWSSC) directs the development partners to the DWSSC, which is responsible for water and sanitation issues in districts. As the DWSSC is mainly mandated to work with rural district councils (RDCs), the development partners are therefore directed to work in areas managed by RDCs. This is how Masvingo City is excluded from WASH interventions that are introduced in Masvingo District through the Rural NAC channel. The development partners currently working in the city are those who approached MCC directly without following the NAC or DWSSC route.

The DWSSC is responsible for compiling district water and sanitation reports that are submitted to PWSSC for continued submission to NAC. However, reports in some cases do not adequately capture the record of WASH activities in Masvingo City and therefore do not show the true picture that prevails throughout the district. Despite this, Masvingo City's efforts to regularly participate in DWSSC activities have opened communication channels and created a positive working relationship. The participants unanimously noted that the separation of rural and urban councils in WASH issues is partly behind the challenges of water supply and sanitation experienced in peri-urban settlements such as Victoria Ranch. The suburb is legally under the jurisdiction of MRDC, yet MCC has been under immense political pressure to intervene and provide municipal services in the settlement. One of the MCC officials indicated:

> it is not easy for us to take full charge of water supply and sanitation development in Victoria Ranch without legally incorporating the settlement into the city's boundaries. This process has taken longer than is necessary.

We found that the incorporation process, if it is to happen, should receive a green light from the central government and the MRDC. However, the major drawback has been the lack of cooperation from land developers (behind the subdivision and selling of stands in the suburb) in terms of financial contribution towards the installation of water and sanitation infrastructure.

9.5 Discussion

The design and composition of WPCs, such as water and sanitation management institutions at the community level, are in line with resilience thinking. However, the main threat remains the ownership of water initiatives in communities. It has not yet dawned on some committee members that they need to take ownership and exercise full control of the water and sanitation infrastructure in their communities. In terms of their design, the WPCs were created to specifically control, secure, and maintain communal water points. The membership of these committees was drawn

from the beneficiaries of the communal water points involving both male and female members of different age groups. Thus, the issue of diversity was addressed. Furthermore, MCC, in collaboration with its development partners, conducted training sessions designed to capacitate the WPCs. In terms of their design and diversity, the WPCs as a water management institution at the community level were poised for success. Continuous capacity building and sensitisation are some of the ways that participants suggested to improve the resilience of WPCs. This is consistent with existing literature that highlights that investments in governance are necessary for the improvement of water and sanitation management systems (Zvobgo and Do 2020). Therefore, capacity-building programmes constitute an important investment in water supply and sanitation management.

Like other cities, the resilience of the Masvingo City Council (MCC) is threatened by political interference (Musemwa 2010; Nhapi 2009). The central government has been pressurising MCC to take over the mandate to provide and manage the water and sanitation infrastructure in Victoria Ranch, a suburb outside the city boundaries and created by land developers, the majority of whom are supporters of the ruling Zimbabwe African National Unity, Patriotic Front (ZANU PF). This is against a background that land developers are not forthcoming in handing over a part of their proceeds from the sale of land to MCC as a contribution towards servicing costs. Another threat is in the form of an Operation Restore Order (also known as Operation *Garikai/Hlalani Kuhle*) – which provided for parallel development in Zimbabwean cities and towns. This operation created urban settlements without reticulated water and sewerage facilities as the beneficiaries did not manage to contribute to the servicing of their settlements. In Masvingo, MCC has inherited the burden of addressing this anomaly. However, the MCC has managed to overcome these and other shocks by successfully instilling a sense of shared responsibility among different stakeholders in terms of the provision and management of water and sanitation. The concerted effort and unity of purpose created by the partnership of MCC, its development partners, and residents of the suburban areas studied improved the overall management role of MCC.

Diversity as a measure of institutional resilience is largely adhered to in Masvingo City. MCC has created a platform for the development of water and sanitation that allows willing stakeholders to participate and contribute in any way possible. However, it is mainly the NGOs (DoS, ZIHOPFE, CCZ, etc.) and the residents that have responded. To promote inclusive dialogue at all levels of water and sanitation management and involve different types of stakeholders (see Alaerts 2019), a Memorandum of Understanding (MOU) was signed involving MCC, DoS, and ZIHOPFE. The MOU encourages continuous dialogue between city management, residents, and development partners on possible ways to address the challenges of water and sanitation in Masvingo. The partnership arrangement has recently included Great Zimbabwe University (GZU), the largest tertiary institution in the city. An MOU involving GZU was drafted and is in the signing stage. Overall, city management has created a platform for all interested stakeholders to participate and help address water and sanitation challenges. However, the missing link is the active participation of the private sector, which in Zimbabwe is almost insignificant

(Chigonda and Chazireni 2018). The hesitancy of the private sector to join is influenced to some extent by the limited profit-making opportunities in the WASH sector (Alaerts 2019).

One of the major shocks faced by MCC in terms of the development of water and sanitation in the city is limited financing and/or financing mechanisms. Although the MCC has made a commitment to set aside some funds from its annual budget for the purposes of financing water and sanitation infrastructure, the funds fall short of what is required. Development partners such as DoS and CCZ have also contributed to the city's WASH interventions through the Masvingo City Fund, yet there is still a huge gap. Shortage of financing has stalled the city's water and sanitation development projects, especially the expansion of water and wastewater treatment plants, the completion of the main sewer trunk line, the drilling of new communal boreholes, and the installation of solar-powered pumps in some of the existing boreholes. These findings reinforce the claim that the financial resources available for urban and rural sanitation programmes in Zimbabwe constitute less than 50% of what is required (GLAAS 2017). Despite the various shocks explained in the above discussion, MCC exhibits some level of institutional resilience. The city has been able to continually deliver water and sanitation solutions to communities within its jurisdiction. While the level of water and sanitation supply might be below the expectations of the communities that participated in this study, the MCC has managed to maintain an above-average supply, which translates to an 'acceptable' level of access.

Some of the water and sanitation challenges experienced by MCC come mainly from institutional design issues at the district level. The Water and Sanitation Coordination Framework in Zimbabwe, which was established in 2010 during the era of a government of national unity (GNU – which expired in 2013), has outlived its useful life. The separation of rural and urban WASH activities in the framework contributes to the challenges in Masvingo City. A district in Zimbabwe is made up of rural and urban local authorities. Thus, separating the two in terms of water and sanitation management creates some coordination complexity as the DWSSC becomes an institution for the RDCs only. This leaves the MCC to make its own water and sanitation development arrangements that are independent of the DWSSC. Although being neighbouring local authorities, the framework does not encourage collaboration as Masvingo City is expected to work with the Urban NAC Subcommittee, and Masvingo Rural works with the Rural NAC Subcommittee (see Fig. 9.1). This arrangement fails to recognise that some water and sanitation challenges cut across the urban-rural divide, and thus urban and local authorities that share boundaries need to collaborate to address them. The case of Victoria Ranch exemplifies this. Although it is a growing low-income settlement within the jurisdiction of MRDC, the services required in the settlement are of an urban nature. Thus, this settlement can become liveable and productive if MCC and MRDC work together to provide the required services.

The separation of urban and rural WASH management creates tension, confusion, and overlaps among institutions working on WASH issues at the district level. The expectation of the chairperson of DWSSC that all partners working in the development of WASH in the Masvingo district must pass through and be registered

with the DA's office is not provided in the operational framework. Tension arises if, for example, MCC decides not to participate in DWSSC meetings. The DA's office as DWSSC's chair takes this as a defiance of the district's leadership structures. Perceived politically, the tension can even be worse. The DAs are political appointees that serve not only government interests but also the agenda of their political party, in most cases the ruling ZANU PF. Therefore, the failure of MCC (led by a mayor from the opposition party) to attend DWSSC meetings may be taken as a direct refusal of an opposition-led city to submit to the ruling party and the government – represented by the DA's office. This has repercussions for Masvingo City as government funding and support may be reduced. Political alienation of local authorities is common in Zimbabwe. This has happened in Bulawayo, the second-largest city in the country. In the post-independence era, the political rivalry between the Harare-based ZANU PF and the Bulawayo-based Zimbabwe African People's Union (ZAPU) caused the central government to limit water infrastructure financing and development projects in the second-largest city (Nel and Berry 1992). MCC has managed to overcome this potential shock by voluntarily participating in DWSSC meetings and activities.

The DWSSC has a membership that includes approximately 21 government departments. In addition, DWSSC works with different NGOs that are implementing projects in the district and that are introduced to the committee through Rural NAC and PWSSC. The private sector is still not very active in providing water and sanitation at the district level. However, the lack of participation of the private sector in water and sanitation is linked to one of the weaknesses of DWSSC as an institution. Its operations are entirely financed by the central government and development partners. This limits the role of DWSSC to mere facilitation as water and sanitation development projects are mainly implemented through the initiatives of DDF and various NGOs. This explains why more than 50% of Zimbabwe's WASH financing is sourced from external funders mainly in the form of aid and grants (GLAAS 2017).

The DWSSC membership is dominated by government departments, which, according to one of the participants, include 'security departments such as the president's office and the police'. This is a possible obstacle to the participation of the private sector and other stakeholders in the DWSSC. The president's office in Zimbabwe is linked to the dreaded Central Intelligence Office (CIO). The presence of the CIO in this committee is intimidating, especially for those with divergent political views. Yet the design of resilient institutions should involve making them receptive to contributions from different political views and actors (Steinberg 2009). This observation is related to the response given by one of the DWSSC members when participants suggested an amendment to the structure of the water and sanitation framework. The participant responded: '…as DWSSC members, we don't make or question policy but we implement policy'. The response implied that it is not the duty of DWSSC members to question or suggest amendments to the structure of the framework. The member expressly indicated that doing so is the duty of politicians. Yet this affects the resilience of government institutions as employees or members sometimes do not take it upon themselves to propose to government officials the changes required to improve institutional effectiveness and efficiency.

The result becomes poor governance as public institutions fail to respond to the needs of the citizens. The response by the DWSSC members shows unnecessary bureaucracy that takes away the power of committee members to suggest, to those in the higher echelons of power, structural adjustments that improve water supply and sanitation management.

9.6 Conclusions and Policy Recommendations

The management of water supply and sanitation in Masvingo City is increasingly threatened by institutional design issues and financial constraints. The operational water and sanitation coordination framework in Zimbabwe is creating confusion, tension, and overlaps in the water and sanitation sector, especially at the district level. The separation of urban and rural water and sanitation management is a weakness that sets up institutions, such as DWSSC, for failure. Separation discourages concerted efforts among stakeholders, which are expected to complement each other for the betterment of water and sanitation development. The case of Victoria Ranch provides enough motivation for the amalgamation of rural and urban WASH management. If implemented, it creates a platform for MCC and MRDC to partner in the provision and management of WASH facilities in Victoria Ranch. Additionally, MCC will be able to benefit from the DDF borehole drilling programme in the district. The distribution of WASH resources in the district becomes easier with MCC being a member of DWSSC. This avoids the overconcentration of resources in rural district councils at the expense of urban councils.

Political interference is a threat to water supply and sanitation management in Masvingo City. The insistence of the DA's office that MCC should be a part of DWSSC without any legal provision can be perceived as political coercion. Participation, in some cases, has no direct benefit to MCC but, instead, is a cost in terms of financial and time resources. The DWSSC is composed of numerous stakeholders, yet it is dominated by government departments that seem to scare off other stakeholders, such as the private sector. As a result, active participation of the private sector in WASH activities at the city and district levels is lacking. This leaves a gap in terms of financing the development of the water and sanitation infrastructure.

To improve the water and sanitation management system in Masvingo City, we propose four strategies that can stimulate positive change. First, the Rural and Urban Water Supply and Sanitation NAC Sub-Committees should be amalgamated. A consolidated approach in the management of water supply and sanitation at the district level is more needed now than ever before, considering the proliferation of peri-urban settlements. These settlements are better managed under a partnership of urban and rural councils since the services required in such settlements are more urban in nature. This strategy can be achieved through lobbying. Water institutions at the district level can come together and lobby for positive changes in the water and sanitation framework.

Second, MCC should continue to promote inclusivity and concerted efforts among stakeholders in the water and sanitation sector of the city. Already, the city has benefitted from this strategy through grants sourced from NGOs to address water supply and sanitation issues. However, more institutions operating in Masvingo can be involved. There is an opportunity for greater integration with higher education institutions. The MOU (involving MCC, DoS, and GZU) that is currently under consideration is the first step towards this integration. Other institutions that can be included are Reformed Church University and Masvingo Polytechnic. MCC can benefit from the innovations in water and sanitation produced by these institutions, especially during this time when all tertiary institutions in Zimbabwe are mandated to focus on innovation and industrialisation as their core business. Tertiary institutions have the opportunity to apply for research grants that focus on addressing water and sanitation issues in Masvingo City. However, this needs an all-stakeholder platform where these opportunities are discussed and agreed upon.

Linked to the second one, the third strategy emphasises shared responsibility among the water and sanitation stakeholders in Masvingo City. MCC has already started the initiative, although it can be broadened. MCC should expand its drive to instil a sense of ownership among stakeholders. The sense of ownership and shared responsibility makes stakeholders realise and play their role in water and sanitation management. Through WPCs, MCC has managed to create a working relationship with residents of the communities studied. Continuous engagement motivates residents to settle their water and other bills in time and in full to enable MCC to continue providing services. On the other hand, the tertiary institutions in the city should lead the search for new and affordable technologies that help MCC provide and manage water supply and sanitation effectively. Such technologies should consider the financially constraint nature of MCC. An example is the eco-san toilets in Victoria Ranch. This is a technology that enabled residents to stay in areas of the city without reticulated water and sewerage systems. Although MCC believes that eco-san toilets have outlived their tenure, it is important for tertiary institutions to advance research on ways to improve this technology. The hope is that the research culminates in an improved version that is cheaper to construct, allows residents to settle in areas that are not serviced, and is sensitive to the natural environment.

The fourth recommendation is to improve the city's revenue base. The current financing arrangement, which is dominated by government and donor agencies, threatens the resilience of MCC as the main water and sanitation institution. The withdrawal of donor agencies from the financing arrangement has a higher likelihood of crippling the development of water and sanitation in Masvingo City. Although partial privatisation of water and sanitation development can lure private sector finance in the WASH sector, MCC should first explore possible ways to improve revenue collection. Promoting 'resident patriotism' improves the resilience of the MCC through improved revenue collection. In simple terms, resident patriotism can be perceived as the desire and zeal of residents to support the growth and development of their city. Therefore, we recommend that MCC should identify and reach out to residents who have a history of settling their bills on time and create an

association that can be termed the 'Masvingo club of patriots'. Discounts and other incentives should be given to these patriots as a way of motivating them to settle their rates and other bills continuously and timely. This strategy can produce three outcomes: (i) increased loyalty of the members of this 'club', (ii) motivation among other residents who can pay their bills on time but are not taking it seriously, and (iii) a guaranteed level of income. In terms of operationalisation, this strategy might face resistance from those residents who do not value the timely settlement of municipal bills. However, this should not discourage MCC as continuous engagement with residents makes them understand their role in the management of water and sanitation. Opening different platforms for dialogue helps clear the misconceptions and wrong assumptions that residents may have in the management of water and sanitation.

Appendix: List of participants

Selected organization	Representatives	Total number
Masvingo City Council (MCC)	The Chamber Secretary Department (1) Housing & Community Development Department (2) The City Engineer's Department (3) The City Health Department (3) The Building Inspectorate Department (3)	12
Zimbabwe Homeless Peoples' Federation (ZIHOPFE)	Community leaders of various suburbs in Masvingo (6) ZIHOPFE Leaders from Harare, Bulawayo & Masvingo (8)	14
Young People's Federation (YPF)	Projects officers (2)	2
District Water and Sanitation Sub-Committee (DWSSC)	The District Administrator's Office (1) Committee member (1)	2
Christian Care Zimbabwe (CCZ)	Projects officer (1)	1
Great Zimbabwe University (GZU)	Facilitator (1)	1
District Development Fund (DDF)	Chairman (1)	1
Ministry of Women Affairs, Community, Small and Medium Enterprises (MWACSMED)	Officer (1)	1
Agricultural Technical and Extension Services (AGRITEX)	Officer (1)	1
Politicians	Masvingo ward councillors (3).	3
Dialogue on Shelter for the Homeless Trust (DoS)	Directors (2) Projects officers (3)	5
Total		**43**

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Chapter 10
Governing Urban Food Systems in Secondary Cities: Contestations and Struggles from Chitungwiza, Zimbabwe

Hussein Mugumbate, Wesley Selemani, and Abraham R. Matamanda

Abstract Food is a critical basic human need affecting different urban life facets. Its contribution to urban health cannot be understated, especially considering food quality. Food access is also a measure of poverty levels, and this is a critical indicator that relates to sustainable development goal (SDG) 1. Overall, the availability of food in cities is vital and links to SDG 11, which focuses on the livability of human settlements. However, planners seem to pay little attention to food systems in cities, despite their importance. The chapter examines how urban governance in secondary cities relates to food systems. Using Chitungwiza, Zimbabwe, as a case study, we analyze how urban governance in this secondary city impacts food systems. This analysis focused on the interrogation of the governance of food production systems, which include urban agriculture within and on the edges of Chitungwiza. This interrogation is especially important considering how residential development in Chitungwiza has been encroaching into the communal lands on the periphery of the city. These areas, such as Seke, have been vibrant hubs of horticultural production. A qualitative approach guides this chapter, where mapping, surveys, and interviews have been triangulated with secondary data sources to enhance our findings.

Keywords Chitungwiza · Food desert · Foodscapes · Urban governance

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10.1 Introduction

Zimbabwe has been mired by political, economic, and social turmoil for the past two decades. Despite being a net food producer in the 1980s and early 1990s, the country became a net food importer, a major beneficiary of food aid after 2000, and lost the breadbasket title (Tawodzera and Zanamwe 2016). These years were characterized by high unemployment, a negative GDP growth rate, rising urban poverty, national shortages of basics or food, hyperinflation, and migration (Glantz and Cullen 2003). Both rural and urban households were affected by this turbulent environment. While socioeconomic problems have been mounting in urban areas, the situation has been dire in secondary cities such as Chitungwiza and Norton, which were originally established as dormitory towns with no economic bases. Coupled with several problems experienced in Chitungwiza, food insecurity has become a challenge in Chitungwiza (Murambadoro 2010). In 2019, it was reported that household food insecurity in Chitungwiza rose from 33% to 35% (Zimbabwe Vulnerability Assessment Committee 2019). However, this percentage was exacerbated by the COVID-19 pandemic, which saw many people losing their jobs, livelihoods, and policies and strategies that failed to integrate food systems (Murendo et al. 2021).

This chapter argues that the persistent and increasing food insecurity in Chitungwiza is attributed to the poor governance of food systems, which results in food deserts. This confirms the argument posited by Misselhorn (2005), who said that the increasing food insecurities in African cities result from complex dynamics at the local level, for example, political and governance issues, with less impact from drought and climate change. This brings to the fore the dynamics around politics and governance systems and how they impact urban food systems and, eventually, food security. We also note that this situation is prevalent in secondary cities where spatial planning and governance frameworks fail to integrate food systems into the spatial planning and governance systems, thus compromising food availability, access, and affordability. Therefore, this chapter analyzes the food governance system in Chitungwiza to understand how food access, production, marketing, and consumption are influenced by the governance system inherent in the city. In this regard, the chapter commences with a historical overview of Zimbabwe's socioeconomic and political events and how they influenced the urban food system. Second, the chapter provides an overview of the realities in Chitungwiza. The discussion and implications for food governance are presented, as well as, lastly, the conclusion, which wraps up the chapter.

10.2 Food Governance in Zimbabwean Cities

Governance is a term that defines the formal and informal arrangement of governing an entity or society. It is premised on the need to direct and control the activities within a particular system to enhance its functionality. Therefore, food governance looks at the processes of making and enforcing decisions that affect the production,

marketing, and consumption of food (Boylan et al. 2019). At the heart of food governance is a food system that considers the value chain of food commonly referred to as "from the farm to the fork." In this system, food is produced, transported to markets, traded in different spaces, and eventually consumed. This value chain has rules and regulations that impact the food system and eventually food access, affordability, and security.

To understand the magnitude of the food governance and security dilemma faced by Zimbabwean households during this crisis, it is crucial to revisit the larger economic and political environment generated by the country's diverse economic policies. The Economic Structural Adjustment Programme (ESAP), the Fast Track Land Reform Programme (FTLRP), and Operation Murambatsvina (Restore Order) were among the policies adopted by Zimbabwe. All these politically motivated developments contributed to the deterioration of urban livelihoods and the rise in family food insecurity.

10.2.1 The Economic Structural Adjustment Programme (ESAP)

A series of recurring droughts in the 1980s and early 1990s, combined with a global recession and the resulting drop in demand for the country's exports, convinced the government that the economy needs to be restructured. Influenced by the World Bank and International Monetary Fund (IMF), the government was forced to implement the Economic Structural Adjustment Programme (ESAP) in 1991 (Nangombe 2015). The World Bank and the IMF spurred the implementation of ESAP, which included economic reforms in two phases, each lasting 5 years: first, ESAP from 1991 to 1995 and, second, the Zimbabwe Programme for Economic and Social Transformation (ZIMPREST) from 1996 to 2000. ESAP was technically introduced to help the country address its internal and international debt problems while encouraging investment and prosperity (Marquette 1997). However, the program brought more harm than good to the nation. It involved massive retrenchments that left many urbanites out of formal employment. Some parastatals were privatized, which affected the delivery of some social services as citizens had to pay for urban services such as primary health care and education, which were largely subsidized by the state in the early years of independence. In essence, ESAP brought a transition from a socialist ideology to a capitalist (Machemedze 2004). Consequently, the cost of living in cities rose beyond the reach of many people, especially those retrenched from their formal employment. This situation resulted in food security problems across the country.

The effects of ESAP included deregulation, which resulted in the elimination of agricultural producer price ceilings, parastatal marketing monopolies, and crop input subsidies. The economy was, for a certain period, a liberalized market-based pricing with reduced government intervention in the pricing of commodities (Ranga 2004). Agricultural marketing parastatals, for example, the Grain Marketing Board

(GMB) and Cotton Marketing Board (CMB), were the exclusive marketing channels through which farmers were required by law to distribute their agricultural goods before the introduction of ESAP in 1991. The impact of agricultural price deregulation was obvious: farm revenues increased, which directly impacted food prices (Sachikonye 1997). However, due to the withdrawal of subsidies, commodity prices like seeds and fertilizers increased significantly, and this improvement was never sustained in the long run, eventually leading to the economy's collapse.

10.2.2 Deindustrialization and Food Security in Zimbabwe

According to a UN assessment, Zimbabwe has been subjected to large-scale deindustrialization since 1995, condemning most people to grind subsistence as communal and resettlement farmers. Mlambo (2017) commented that Zimbabwe has been deindustrializing since 1995, leaving many Zimbabweans to rely on community and resettlement agriculture. The manufacturing sector, an important part of the economy, shrunk from 10% to 4% of total employment due to the closure of many firms. The service industry lost jobs and now employs just 9% of the labor force, down from 19% before 1995. Operators in the wholesale, retail, hotel, and restaurant industries slowed operations to employ the percent of the national workforce. Similarly, the mining industry went from employing 5% of the workforce to merely 3% (Bhebe and Mahapa 2014).

Mlambo (2017) traces the growth and eventual decline of the country's manufacturing sector, demonstrating that, beginning in the year 2000, major manufacturing companies began scaling back operations or closing their doors due to many factors, the most significant of which were foreign currency shortages, a lack of raw materials, and the country's ongoing power outages. Low agricultural productivity caused by the FTLRP made it difficult for food processing enterprises like National Foods to get enough raw materials to manufacture mealie meals, cooking oil, flour, and other food goods. Most grains were diverted to the illicit market by the Grain Marketing Board (GMB), controlled by JOC and reeked of corruption.

Unilever South East Africa, which makes most of the country's soaps and detergents, is also cutting back on operations, owing to a lack of raw materials and foreign currency, to import more raw materials and replacement parts. OMO washing powder, surface cleaners, soaps, and Stork Margarine have all vanished from the market. Olivine Industries, a major manufacturer of cooking oil and canned goods, also had significant issues obtaining raw materials (Mpofu 2018). The firm was involved in several price disputes with soya bean farmers, who always demanded higher rates for their crops, forcing the company to rely on imported raw materials. In 2005, the firm stopped producing cooking oil, protesting the FTLRP's violent takeover of white-owned commercial farms (Tawodzera and Zanamwe 2016). Dairiboard, which was at that time the country's biggest dairy company, was seriously affected by reduced milk production following the FTLRP, and the company's milk brands Chimombe and Fresh Milk disappeared from the market. At the same

time, retailers who wished to make bulk purchases were instructed to place their orders well in advance.

Lobels Holdings was not immune to the economic downturn that afflicted other businesses. As previously stated, the company's issues began in 2002 when its ownership shifted. Wheat shortages in the country exacerbated an already dire scenario for the bakery, which saw its output drastically curtailed. Before its closure, Lobels had a huge fleet of delivery trucks that served many areas across the country. However, after 2001, particularly in 2007, the firm could not even satisfy Harare's bread needs, and outlying cities, such as Chitungwiza, were also heavily affected. Subsequently, most of the bread produced was sold on the black market at exorbitant rates or in foreign currency (Zvikomborero and Chigora 2010).

10.2.3 Land Reform Programme

In September 1998, the Zimbabwean government initiated the Second Phase of the Land Reform and Resettlement Programme, a food governance program to improve social stability, poverty alleviation, peace, and justice (Cliffe et al. 2011). Since 2000, the Zimbabwean government has implemented land/agrarian reform as one of its primary food governance policies. While appreciating the need to redistribute the land, the land reform program in Zimbabwe became politicized, chaotic, and elitist. Fundamental issues such as equity and sustained food production were overlooked, resulting in increasing food crises in the country. The situation was dire in urban areas that rely on agricultural produce from the rural areas and urban hinterland. As a result, extensive working procedures should have been implemented to ensure food governance at all levels.

Food governance, security, and nutrition were not guaranteed due to the land reform program. The land reform program caused more problems in food security and nutrition. The chronic and transient consequences of the land reform program on the employment and ability of agricultural laborers to support themselves were discussed by Sachikonye (2003). In other words, the strategy directly affected food and cash crop production, inputs, and outputs as they negatively affected food prices. During the redistribution procedure, several crops that were supposed to be cultivated by commercial agricultural regions were unavailable and out of reach (Moyo 2011).

Private companies that used to buy grain directly from farmers have ceased doing so. The flow of cash income to maize surplus families was reduced (Mkodzongi and Lawrence 2019). As a result, cash flow issues for input purchases for the following agricultural crop arose. Traders who bought corn in excess areas to sell in food-insecure communal and urban areas were made illegal. The movement of grain to deficit areas was destabilized due to this, leading to grain shortages. The land reform legislation was designed to empower the indigenous people with land rights and possibly food sovereignty, but it created more challenges as input and maize prices skyrocketed (Scoones et al. 2011).

10.2.4 Political Factors

Between 1950 and 2013, Zimbabwe had at least 23 droughts (Nangombe 2015). Climate change is to blame for the increased frequency of severe droughts and other natural disasters. People survived by picking wild fruits during the 1861 drought, which persisted until the harvesting season. Some people had to drive 80–100 km with only a few beans to exchange for maize (Nangombe 2015). During the 1896 famine, he also mentions that the Chief Native Commissioner chose to stop providing help to the people, claiming that people could still subsist on fruits, which were adequate to keep them alive. In the early and late 1995–2000s, Zimbabwe, then known as Southern Rhodesia, experienced two major droughts, which Phimister claimed were exacerbated by the collapse in cattle prices and changes in the beef market in the first half of the decade, and was later exacerbated by the East Coast Fever, which resulted in massive quarantines, destocking, and the prohibition of animal movement (Tawodzera et al. 2016).

Another drought hit certain sections of the region in 2002 and 2003. For Zimbabwe, it was compounded by economic instability resulting from deteriorating ties with Western nations following Zimbabwe's contentious land reform program in 2000, which handed land to the country's landless black majority while removing land from the white minority (Wamuti 2020)). Another drought hit certain sections of the region in 2002 and 2003. For Zimbabwe, it was compounded by economic instability resulting from deteriorating ties with Western nations following Zimbabwe's contentious land reform program in 2000, which handed the land to the country's landless black majority while removing land from the white minority (Scoones et al. 2011).

Mpofu (2018) Zimbabwe's economy was agro based throughout the years 2001–2003 due to vulnerability to such harsh weather, and any developmental ambitions are hinged on a successful rainy season. Around 80% of Zimbabweans rely on rain-fed agriculture to support their families (Madzwamuse 2010). Irrigation projects have been known to collapse altogether during drought years, requiring more than one season to recover. According to studies, the rainy season after the 1995–2005 drought generated just 80% of typical rainfall, insufficient to maintain river flow or raise the water table to safe levels (Madzwamuse 2010).

10.2.5 Food Shortages and Political During 2007–2008

At various points in history, hunger and food security challenges on the African continent have dominated news headlines and intellectual discussions for decades, resulting in various studies of African nations' (in)ability to adequately address the food security problems. Every day, Zimbabweans are terrified of reverting to the 2008 situation, which was characterized by hyperinflation, severe food shortages, and political gridlock. Jones (2010) coined the phrase "the nadir of a decade-long

economic collapse" to characterize the time around 2008. Zimbabwe was mired in economic and political doldrums from 2000 to 2009, when a Government of National Unity (GNU) was created in 2009.

Various authors on Zimbabwe's economic and political downturn point to the negative impact of the Economic Structural Adjustment Programme (ESAP) on the economy in the late 1990s, as well as the economic implosion and hyperinflation era from around 2000 to 2009, which resulted in the emergence of BACCOSI and a massive influx of imported goods from other countries (Matamanda et al. 2021). The closing decade of the twentieth century was a watershed for Zimbabwe's politics and economics, as evidenced by the consolidation of a more repressive and intolerant state with patronage and accumulation tendencies, the rebirth of opposition politics in the form of the Movement for Democratic Change (MDC) in 1999, and the imposition of sanctions by the United States of America (USA) and the European Union (EU) in 2000. Another group of researchers has studied the socioeconomic and political environment in post-2000 Zimbabwe, producing groundbreaking studies on roadside currency trading the foreign currency black market (Madimu 2020), price freezes and the resulting parallel market in basic commodities (Jones 2010), and the various coping strategies used by ordinary Zimbabweans as they navigated the crisis era (Jones 2010). Other researchers have looked at the role of nongovernmental organizations (NGOs) in providing food relief to the hungry (Chigodora 2016). These initiatives and boards came into existence to reduce the effects of food shortages on shelves, supermarkets, and the country at large.

Although Zimbabwe has been proven to be the bread basket of Southern Africa, exporting over 140,000 tons of sugar by 1990, Zimbabwe's food security situation in the first decade of independence has generally been characterized by a food security paradox, in which the country was food secure at the national level. Still, individuals and households were malnourished and experiencing hunger in most of the country's districts (Potts and Mutambirwa 2019). As a result, when important political decisions were taken and inflation soared to over 150% by 2006, the food security paradox emerged. Still, the food security paradox existed even when Zimbabwe was the bread basket (Sachikonye 2003).

Impromptu land seizures and the FTLRP spearheaded by war veterans, who had become the regime's most ardent supporters since the 1997 payments, represented a crucial turning point in Zimbabwe's state-building trajectory (Hammar 2009). That year marked the conclusion of a state developing since ESAP's inception. The land grabs began shortly after a nationwide vote in early 2000 rejected constitutional reforms. In an attempt to appeal to its electorate in a political context marked for the first time in the country's history by a strong and popular opposition movement, the MDC, the governing ZANU PF administration, supported the invasions (Tawodzera and Zanamwe 2016).

To appeal to its electorate in a political context, marked for the first time in the country's history by a strong and popular opposition movement, supported the invasions. The ZANU PF's rural support base was becoming increasingly alienated due to economic problems brought on by growing inflation. As a result, distributing white-owned property to rural people was meant to please the regime's rural

electorate and preserve its support in upcoming election. The plan was to allow most people to own land and increase food security. However, political decisions in this age trumped food security concerns and the necessity to implement food security measures (Manjengwa et al. 2012).

At this point, a particular segment of the governing regime's electorate (made up of security forces, war veterans, and the black business elite) had mutated into a much stronger ally, and it got greater advantages from the state – in reality, it had become an extension of the state. Rather than arguing that the governing regime purposefully generated food scarcity for political objectives, this study contends that the character of the state that ruled in Zimbabwe from 2000 created conditions that resulted in severe food shortages (Sibanda and Makwata 2017).

Without necessarily recounting the events that characterized this period of the country's history, a few examples can be cited to substantiate the view that the Mugabe government's policies created fertile ground for accumulation by the ruling regime and its cronies while failing to address the country's real economic concerns, such as rising inflation and looming food shortages. "[T]his elite has increased based on the present state attack, not just via the restructuring of ownership on the land but also through the assault on ownership structures across the economy" (Raftopoulos and Phimister 2004).

Grace Mugabe's purchase of Foyle Farm in Mazoe from its white owners during the height of the FTLRP, establishing herself as "probably the greatest dairy farmer in the nation" (Hove 2015), is an illustration of the accumulative tendencies that characterized the post-2000 Zimbabwean state. Nestle Zimbabwe, a prominent dairy food processing firm in the country, was obliged to acquire roughly 15% of its milk requirements from the first family's farm, Gushungo Dairies, according to allegations in the media (Hove 2015). This plainly portrayed Zimbabwe to the outside world as a terrible investment location, revealing the President's and his family's ravenous thirst for cash.

The purchase of the country's largest bread manufacturer, Lobels Holdings, by a consortium of local capitalists led by David Chiweza, a former military officer with close ties to the current regime, was also another outstanding example of this type of consolidation sponsored by the existing party. It has recently been revealed that the new owners utilized the bakery as a cover to amass foreign cash when the country suffered from severe foreign currency and food shortages (Nyikahadzoi et al. 2012).

After the economic crisis that followed the DRC war, war veterans' payouts, and the withdrawal of IMF and World Bank assistance, the governing regime's last desperate attempt to salvage its soiled reputation among its electorate was to attack white-owned commercial farms (Sibanda and Makwata 2017). The farm invasions tarnished diplomatic relations between the Harare government, the United States, and the European Union (Ranga 2004). These sanctions resulted in the cutting of donor aid, development grants, and bilateral relations, which eventually resulted in the worsening of Zimbabwe's economy, severe foreign currency shortages, a wave of deindustrialization, hyperinflation, and severe food inflation.

The emergence of a black market for basic commodities in 2008 was a direct result of price regulations and dwindling manufacturing capacity. Supermarket shelves were mostly empty, with the exception of mineral water and tea leaves (Tawodzera et al. 2018). Vendors, as had been the usual, sold a variety of items, such as cooking oil, sugar, salt, soap, vaseline, and bread, at exorbitant rates, as compared to gazetted prices, directly outside most stores. These developments typified the emerging survivalist economy, in which many who had lost their occupations either sold basic supplies on the illicit market or participated in whatever activities they could to make ends meet (Tawodzera and Zanamwe 2016).

10.3 Chitungwiza Foodscape and Governance Nexus

10.3.1 Origins of Chitungwiza

Chitungwiza is located 25 km from the capital city, Harare. It is reported that the establishment of this city was a deliberate process by the white minority to push away the black majority far away from the white suburbs, such as Avondale, Highlands, as well as Mount Pleasant. It was meant to be a dormitory settlement to accommodate labor for Harare. The name Chitungwiza was derived from Dungwiza, the village of the legendary prophet Chaminuka. Chitungwiza is rated the third largest urban settlement after Harare and Bulawayo. The city has several suburbs, which include St Mary's, Seke, and Zengeza. St Mary's is the oldest township of Chitungwiza and is divided into two sections, Manyame Park (New St Mary's) and Old St Mary's.

Chitungwiza township consists of 397,000 residents. Despite this huge population, it is alleged that most residents obtain livelihoods through various activities, such as retailing, vending, selling secondhand clothes, and changing money, particularly the youth. Being surrounded by communal areas such as Dema and Chiwota, Chitungwiza enjoys daily produce from farmers who have urban farming as a livelihood. Most of the products produced by these farmers are tomatoes, cabbages, carrots, sweet potatoes, beans, and all kinds of farm products. Academic wise, the township has formal and informal schools. Of late, we have witnessed the emergence of informal schools to cater to the ever-growing population of school-going age.

10.3.2 Mapping of Food Markets in Chitungwiza

The food system in Chitungwiza is complex. As highlighted above, most residents are into vending and retailing. Most of them obtain food products from communal farmers such as Dema, Chiwota, and nearby Marondera. This situation shows that most fresh fruits and vegetables consumed by households in Chitungwiza are

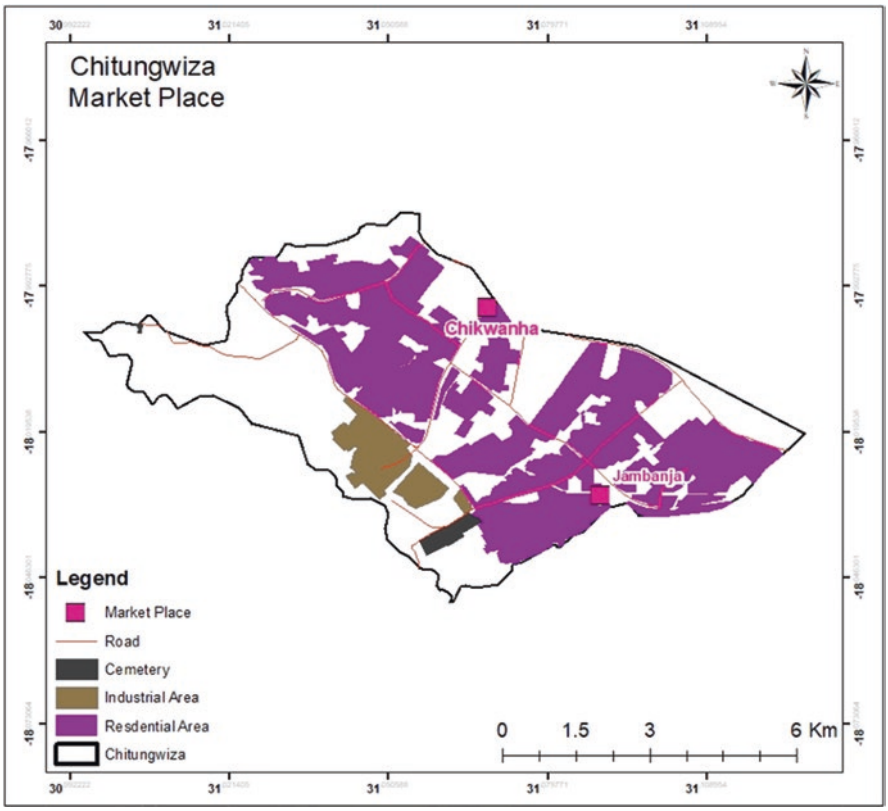

Fig. 10.1 The location of Chikwanha and Jambanja food markets in Chitungwiza. (Source: Authors creation 2022)

produced in the peri-urban areas around Chitungwiza. The households' reliance on the farmers for fresh produce is partly attributed to the municipality laws restricting and criminalizing urban agriculture in Chitungwiza. In this regard, households heavily depend on markets such as Chikwanha, Jambanja, Makoni, and St Mary's, from which they purchase fresh vegetables and fruits (Chatiza et al. 2022). Figure 10.1 shows the location of the Jambanja and Chikwanha food markets in Chitungwiza.

The fresh vegetable and fruit markets act as supply depots for fresh fruits and vegetables in Chitungwiza. These fresh vegetable and fruit markets play a critical role in food access as households can buy fresh fruits and vegetables. Other food products such as bread and other processed foods such as peanut butter and other traditional foods fall into this category and help in diversifying the dietary needs of the urbanites (see Fig. 10.2). Usually, farmers bring their produce to the markets, allowing the consumers to also purchase the produce at affordable prices.

However, the major issue with these markets relates to their regulation. For example, the Jambanja food market is informal, and traders in this market report

Fig. 10.2 Bread, peanut butter, and other traditional foods sold at the Jambanja food market. (Source: Authors 2021)

that the municipal authorities and some ZANU-PF youth have been responsible for the collection of daily levies from the market. Moreover, there are no formal procedures for regulating the market regarding trading spaces, which is usually client based. Many people indicated that the ZANU-PF youth has a significant say in the daily operations of this market, a situation that often results in some farmers avoiding coming to sell to this market and rather resorting to other markets, such as Mbare and Chikwanha. This then results in inflated fruit and vegetable prices to the locals, who are either forced to commute to these other markets or buy from fruit and vegetable vendors, who also charge a markup on their prices.

Some food is also sold by vendors who buy in bulk from the markets and then sell in smaller quantities. These individuals help supply households with a variety of food products, which they sell in smaller quantities (see Fig. 10.3). While serving the community, these informal vendors are always criminalized by officials and do not sell their wares freely. This criminalization is based on the official perception of informality as compromising the order, aesthetics, and functionality of urban spaces as espoused in the preamble of the Regional Town and Country Planning Act Sect. 29:12 of Zimbabwe.

Besides the fruit and vegetable markets, other food products, such as meat and fish, are also sold by the vendors. This is a very delicate sector of the foodscape in Chitungwiza, where some individuals end up selling some meat products that do not meet the public health standards stipulated in the Public Health Act, which mandates strict controls on the selling of meat products. Likewise, section 94(1) of the Urban Councils Act advocates for the regulation of markets to maintain cleanliness, sanitation, and good order. This section resonates with the broader aim and objective of the RTCPA, which seeks to promote order and aesthetics in cities. The main problem with most urban fresh fruit and vegetable markets in Zimbabwe has been

Fig. 10.3 Traders arranging their produce on their stalls in Seke, Unit H. The vendors buy the produce from Chikwanha Market. (Source: Authors 2021)

the failure to manage the waste generated (see Fig. 10.4). In this way, there have been issues of cholera outbreaks, which some have attributed to the unsanitary conditions in which some of the meat is sold, while others argue that the meat has also been contaminated.

10.3.3 Stakeholders in Chitungwiza's Food System

There are various stakeholders involved in food production, distribution, and consumption before it reaches the consumers. That being the case, we have seen that food production, distribution, as well as consumption have various stakeholders involved.

First, there is some food produced by households that caters to their household consumption. In this regard, we found that urban agriculture is critical in Chitungwiza, where households engage in maize production during the rainy season to supplement their grains, which are used as the main staple food in Zimbabwe. This maize production is usually conducted on any open space as the plot sizes are often small and do not allow much to be produced (see Fig. 10.5). However, there has always been tension and conflict between urban farmers and the municipality, which does not tolerate cultivation in open spaces, claiming that it is against urban

Fig. 10.4 Heap of food waste dumped at the edge of Jambanja market, posing an environmental threat. (Source: Authors 2022)

Fig. 10.5 Urban agriculture on an open piece of land in Chitungwiza. (Source: Authors 2022)

laws and policies. Moreover, most of this urban farming is conducted in wetlands, and there have always been issues from the Environmental Management Agency, which calls for the protection of wetlands and restricts any cultivation in such spaces. While appreciating the concerns of the authorities, these restrictions have implications on the households' ability to access adequate food as some cultivate fresh vegetables also in these spaces where they are restricted from doing so. On the other hand, such restrictions are a clear indication of the misunderstanding on the part of the authorities on the value of urban agriculture in alleviating food poverty and also providing nutritious food to poor households, as stipulated by Matamanda et al. (2022).

Second, retailers are critical in the distribution of some household groceries including bread, cooking oil, and other foodstuffs required daily. While there are some retail shops dotted across the city, the distribution of these is not even as some areas are not well served thereby creating some food deserts in these areas with limited coverage of grocery shops. To address this challenge, spaza shops, commonly known as "tuck shops," provide easy access to food and groceries among the residents. The main issue with the tuck shops has been compliance with municipal regulations. During the 2005 Operation Murambatsvina,[1] most tuck shops were demolished, and this somehow created a food desert as it limited food access points for the residents (Tibaijuka 2005). Successive blitzes have continuously compromised the operations of the tuck shops to the detriment of food access among the residents.

Third, as mentioned earlier on, food vendors play a critical role in the distribution and marketing of food in Chitungwiza. As shown in Fig. 10.6, street vendors provide critical access to food to residents in Chitungwiza.

Additionally, the police also play a role in the governance of the food system in Chitungwiza. The police have assumed a great role in the regulation of informal activities and in ensuring food is sold in designated places. They usually undertake this role with the help of the municipal police and the Zimbabwe Revenue Authority. Rather than bringing order and functionality in the food markets, the police have been reported to cause mayhem as they require vendors to pay them to operate in certain undesignated places. For instance, during the Covid 19, police have been involved in restricting people's movements in markets and regulating hours of business.

The other stakeholders in the cycles of food distribution transport and consumption are the political party members. These groups of people have a high influence when it comes to the provision of markets as well as space for vending. The allocation of vending spaces in the markets, and eventually trading, is heavily controlled by some politicians. This is evident in markets such as Jambanja, where the ZANU-PF youth terrorizes vendors (NewsDay 2021). During fieldwork in 2022, we have heard reports from the Jambanja market in Unit M that there was an arrest of some youth. It is alleged that these people have, for a long period of time, been collecting funds in the form of market fees. Prior to this incident, the local vendors

[1] A national blitz that was carried out to regulate informal activities and resulted in informal businesses and structures being demolished across the country.

Fig. 10.6 Roadside vendor selling fruits and vegetables in Chitungwiza. (Source: Authors 2022)

were becoming suspicious of the conmen. Eventually, they decided to report the case to the police for an investigation. After an investigation, the police confirmed that the members were not from the ZANU PF party as they claimed; rather, they were thieves taking advantage of the poor and struggling vendors. Fourth and finally, we have consumers as the last stakeholder in food production, distribution, and consumption. Through observation, we have discovered that food becomes very expensive in the market because of transport costs or they are out of season. In this regard, the vendors add extra cost in a bid to produce a profit. Despite the product being expensive, the consumers purchase it regardless of the price. One should know that food has no alternative, as compared with other products. It is the consumer who pays much of the costs of food processing, distribution, and consumption.

10.3.4 Governance and Management of Food Systems in Chitungwiza

Food management and governance in Chitungwiza is a complex issue. The township is managed and controlled by the town councils. That being the case, they are the ones who authorize and regularize food distribution and transportation and decide on the location of markets. Formal markets are registered manufacturers and

retailers, such as the TM, OK, and Spar shops, that are strategically positioned in areas zoned for retail or commercial activities, for example, Town Center, Makoni Shopping Center, and Chigovanyika Shopping Center. These shopping centers accommodate mostly formal shops, which have to pay taxes to the council. However, we found that the occupancy ratio in some of these formal areas zoned for retail is low. For example, at Town Center, there were many vacant shops as tenants lamented that the rentals they have to pay are too high and are, thus, unattractive for business. This situation creates a food desert as consumers are denied the option to buy from the retail shops.

Therefore, nonregistered retailers fill in this void and provide food products in the form of tuck shops situated close to people's residences. These categories of retailers face daily conflicts with the town councils and the police, who demand the hawkers license and monitor health standards of foods. Reports confirm that small-scale retailers do not see it fit to pay monthly hawkers licence as it is expensive as well as reduces the monthly profits of businesses. One should take note that vendors and tuck shop owners have little profits from their daily sales.

The last category of food providers in the Chitungwiza township consists of farmers and vendors. The township gets farm produce from neighboring areas such as Dema. These producers have no problem with the local authority as they just deliver the products to the vendors at wholesale prices. The challenge is between the vendors and the town council. A report confirms that the town councils collect market fees daily. The fees collected are assumed to build simple structures such as toilets and shades. Surprisingly, the area has been under development for many years, and when bad weather such as high temperatures and heavy rains happen, it compromises the health of the products. This is much more witnessed in areas such as Unit M (Jambanja informal market). Chitungwiza Town Council used to have its own formal food markets, but as a result of poor governance, most of these markets are underutilized and in a poor state. For instance, Zengeza Chikwanha market and Makoni market are the prominent formal fruits and vegetable markets owned and managed by the town council. The markets are still operating but cannot cater to the ever-growing vendor population.

10.4 Conclusions

This chapter has focused on food governance in Chitungwiza. It addresses critical issues pertaining to urban governance in relation to food systems in secondary cities. While providing the historical background of the food situation in Zimbabwe, which was affected by geopolitical events, the chapter highlights the volatile nature of urban food systems. It is also evident that the poor suffer much during these instances of political turmoil and poor governance. The situation in Chitungwiza shows that there is limited understanding of the complexity of food value chains, and this results from uncoordinated regulations and policies that fail to integrate the needs of the community. The municipality must accommodate the diverse food

markets (formal and informal) in its plans as this would ensure that households have access to food with ease. In this way, the food deserts are minimized, and this also enables the community members to have diversity in food access. Such provisions would also help hedge against food price inflation, which impacts poor households. The politicization of food governance through the involvement and control of market spaces such as Jambanja by ZANU-PF youths greatly impacts the food system. Unless this issue is redressed in food systems, the poor will continue to be disadvantaged.

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Part V
Planning, Urban Management and Policy

Chapter 11
Changing Centre-Local Relations and the Financing of Urban Development in Secondary Cities: A Comparative Study of Zimbabwe and South Africa

Charles Chavunduka, Edith Risinamhodzi, and Jacob Nyamuda

Abstract Most urbanisation in developing countries occurs in secondary cities, yet their revenue base is relatively declining. The chapter traces the changing centre-local relations to establish the scope for future development funding in secondary cities. This is important because estimates indicate that if secondary cities were better equipped to steer their economic assets and development, the gross domestic product could double or triple, with a significant developmental impact on their hinterlands. The research design adopted a comparative approach to urban finance in Zimbabwe and South Africa. Data collection was based on literature reviews and key informant interviews. The results show that both countries have been centralising revenue collection and reducing the scope for local finance. This has increased the dependence of secondary cities on intergovernmental transfers at a time when central governments are facing economic challenges. In the future, secondary cities will need to look for alternative sources of revenue, including land value capture and public-private partnerships or concessions.

Keywords Centralisation · Control · Intermediate cities · Urban finance · Africa

11.1 Introduction

The financing of cities and towns is high on the global agenda, particularly in view of difficult international and domestic environments (Cirolia 2021; South African Cities Network 2012; Roberts 2014). Within global policy arenas, financing is critical for ensuring socially, economically, and environmentally sustainable urban development. The New Urban Agenda prioritises urban finance by harnessing the

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city economy and creating employment (UN-Habitat 2016). This call for sustainable finance pushes for productive cities (SDG 12) that are resource efficient and can raise living standards through the production of more affordable goods and services. Fostering the development of productive urban economies is the path to sustainable cities and communities (SDG 11).

An important development in Africa has been the rise of constitutional democracy with its emphasis on the devolution of power and authority to local governments. The constitutional recognition of local authorities has given further impetus to the critical role of urban finance in the development of cities (Roberts 2014). Urban finance is critical to provide funds for strategic infrastructure and capital investment. It has received increased interest in relation to secondary cities due to their important role in supporting national and regional development. A secondary or intermediate city generally occupies the second-tier level of a hierarchical system of cities based on population thresholds. It is defined as an urban area that generally has a population between 100,000 and 500,000. However, what are considered secondary cities may differ from country to country.

Secondary cities are of interest because they have been exhibiting strong demographic growth but often receive less scholarly attention than primary cities. However, demographic growth has caused great stress on these cities, which tend to have fewer resources than the primary ones. Thus, many are struggling to manage urbanisation, attract investment, and meet the demand for housing, infrastructure, and urban services. But it is in these cities that national economies need to be built because of their potential to double or triple the gross domestic product (GDP), with significant benefits to their hinterlands (Roberts 2014). Also, it is in these cities that solutions to global challenges, such as unemployment, poverty, inequality, and the impact of climate change, need to be managed.

This book chapter addresses a relatively neglected subject in the urban agenda, that of the financing of urban development in secondary cities, given that scholarship has tended to give more attention to primary cities. Furthermore, the chapter draws parallels between two neighbouring countries, Zimbabwe and South Africa, which have a similar colonial history but have implemented devolution to varying extents using lessons of experience. It gives a theoretical framework based on the neoclassical model of intergovernmental relations; conceptualises centre-local relations; briefly outlines the methodology before presenting the findings, followed by a discussion; and then concludes.

11.2 Neoclassical Model of Intergovernmental Fiscal Relations

The chapter adopts neoclassical theory in analysing centre-local relations within the overall framework of decentralisation. The neoclassical model is concerned with the assignment of responsibilities, that is, allocative efficiency, distributional equity,

and macroeconomic stability, among the various tiers of government (Musgrave and Musgrave 1976; Oates 1999).

The neoclassical model of fiscal decentralisation regards sub-national jurisdictions as small and open economies whose capabilities and interests do not necessarily coincide with those of the central government. Interjurisdictional disparities can result in the inability to provide local public services that may induce undesirable internal migrations that result in social-political tensions. The model asserts that the proximity of the decentralised government to the electorate permits a more sensitive adaptation to offer public services to differing scales of interregional variations based on preferences and higher accountability and responsiveness by policymakers. Accordingly, additional gains can also be realised from experimentation and innovation at sub-national levels. For these reasons and to maximise efficiency in decentralised systems, the neoclassical model assigns the allocation function to the sub-national level and the stabilisation and distribution functions to the central level (Musgrave and Musgrave 1976).

In the neoclassical model, for the revenue side of the budget, the assignment of taxes should take account of the differences in taxpayer mobility among the various levels of government. The horizontal and vertical fiscal gaps, which necessarily arise from such an exercise, should be filled with transfers and grants in aid. Ultimately, the neoclassical model proposes optimal-size jurisdictions that ensure confidence between a group of decision-makers, taxpayers, and beneficiaries.

The importance of the neoclassical model to the study of centre-local relations lies in its recognition of the existence of multi-level governmental institutions and their role in service delivery, thereby assigning them responsibilities such as resource allocation, distributional equity, and macroeconomic stabilisation. The model also recognises that capital and labour mobility can result in horizontal fiscal gaps. This is true because labour and capital follow where they are rewarded with profits. Some regions are resourceful compared to others, and this may result in disparities and inequitable development. The model assigns distribution and stabilisation functions to central authorities, which use governmental transfers and grants to fill the horizontal fiscal gap.

The neoclassical model has been criticised for its excessive normative character (Beer-Toth 2009; Wiseman 1987). Institutions tend to be a product of a multiplicity of historical forces and are not necessarily well suited to perform the normative tasks set by the model. Furthermore, some sub-national structures already existed under centralised unitary systems of government. In such cases, the political and fiscal autonomy of lower-level authorities was severely limited, which left them with the primary role of being simple executive agents of the centre.

In the New Urban Agenda, intergovernmental relations are undergoing a thorough change resulting from extensive political and fiscal decentralisation. This change not only leads to more autonomy but also signifies responsible government at all levels. However, most governments in the developing world adopt a decentralised unitary model, and much less is based on federal systems. Moreover, the form and content of actual intergovernmental arrangements vary with actual geographic and demographic characteristics, the political and institutional context, as well as the actual stage of decentralisation.

11.3 Conceptualising Centre-Local Relations

'The conceptualisation of centre-local relations has usually been linked to decentralisation and its related meanings' (Wekwete 1994: 37). In centre-local relations, three forms of decentralisation are identified: de-concentration, delegation, and devolution. De-concentration means that the higher-level authority keeps its powers and responsibilities for a given public function while leaving the execution to lower authorities. Delegation is whereby the lower authority has considerable discretion as to how to carry out a delegated task, but it is fully accountable to the higher authority, which retains ultimate responsibility for what is done and provides some or all necessary funding. Devolution is the most complex form of decentralisation, in which responsibility for a particular function is entirely transferred to lower authorities that are, in this case, elected, independent, and self-governing entities.

The centre represents the central government and the apparatus at its disposal to exercise power. In unitary systems of government like Zimbabwe, the centre largely determines what happens at the local level. The rules that govern relations between the central and sub-national levels are generally prescribed by the central government. The capacity of local governments is partly dependent on the resources and responsibilities they are granted and on the power of central governments to override their decisions (The World Bank 2000). This contrasts with federal systems of government as their sub-national institutions enjoy relative autonomy. In Africa, there has been much rhetoric about bestowing power to local governments, but in reality, the powers are highly circumscribed (Wekwete 1994; Conyers 2003; The World Bank 2000; Cirolia 2021).

In many African countries, fiscal decentralisation has been half-hearted with an expanding catalogue of responsibilities granted to local governments without providing the necessary revenues. No wonder the quality of decentralised services has declined drastically (The World Bank 2000; Cirolia 2021).

11.4 Methodology

The research adopted a comparative design that considered the fact that both Zimbabwe and South Africa have a similar colonial history and adopted devolution in 2020 and 1996, respectively. The comparison was based on identified sources of urban finance, such as intergovernmental transfers, borrowing local revenue, and emerging funding mechanisms under the influence of changing centre-local relations in both countries. The research is based on a desk review, but due to easier access in Zimbabwe, this was complemented by key informant interviews. Six key informants were interviewed, and their designations are as follows: key informants 1 and 2 – senior officials in the Ministry of Finance and Economic Development, key informant 3 – senior official in the Urban Councils Association of Zimbabwe, and key informants 4, 5, and 6 – senior finance officials, each from three secondary cities visited in Zimbabwe. Evidence on South African secondary cities is based on

literature review, laws, and policies, including national budget statements. Data were subjected to content and thematic analysis to derive patterns that informed comparison.

11.5 Results

11.5.1 Zimbabwe: Of Debt Crisis and Control

The government of Zimbabwe has been promoting development in secondary cities as a way of reducing the disparities between rural and urban areas. Cities are expected to be engines of economic growth in regions and contribute to the development of their hinterlands. The development of secondary cities has been dominated by the growth of residential areas that lack infrastructure and services. By the time the country implemented the fast-track land reform programme 2001–2003, it was already in debt repayment arrears. Since its independence in 1980, Zimbabwe has relied on loans provided by the World Bank to finance infrastructure development in cities. The government would borrow money for lending to cities, which was to be repaid over a duration of 10–30 years. The advantage of the loans is that they were affordable for cities and nurtured a sense of responsible citizenship since they were intergenerational. Loans were also used to finance low-income housing, allowing beneficiaries to repay over 25 years or more. By 1998, Zimbabwe began to fall behind in its repayment of loans to the World Bank, a situation that would deprive it of much-needed funding for infrastructure and service provision.

Post 2000, the macroeconomic environment continued to deteriorate following the fast-track land reform. Hitherto, bonds had been the commonly used capital market instrument exercised by secondary cities. Municipal bonds would be floated on a regular basis and used to raise cash for investments in infrastructure development. With the fast-track land reform, the image of the country was severely battered and the accompanying status of the Pariah state increased the level of risk.

Besides the unstable political and macroeconomic environment, since the formation of the main opposition Movement for Democratic Change (MDC) (later renamed Citizens Coalition for Change (CCC)) in 1999, centre-local relations in Zimbabwe have been defined by polarised politics. There is political polarisation between the Zimbabwe African National Union-Patriotic Front (ZANU-PF) party, which dominates the central government, and the CCC, which controls 31 of the 32 urban councils in the country. The period after the formation of the CCC has seen the continued withdrawal of power from urban councils by the centre. There has been a deliberate move to centralise revenue collection because most of the urban councils are controlled by the opposition (key informant 5).

In 2001, the Zimbabwe National Road Authority (ZINARA), which falls under the Ministry of Transport and Infrastructural Development, was established in terms of the Roads Act with the aim of improving the road network throughout Zimbabwe. ZINARA took over vehicle licensing from local authorities, a move that has deprived

the latter of an important source of income. The parastatal is supposed to disburse part of the collected revenue to local authorities for use in road infrastructure development, but in practice, disbursements have not been regular and the amounts have been short of recipient expectations. The feeling has been that the old arrangement that let local authorities license vehicles gave them power and that the move towards centralised government control over finances enabled political control by the centre (key informant 5). Similarly, in 2006, the Ministry of Local Government, Public Works and National Housing directed the Zimbabwe National Water Authority (ZINWA) to take over the management of water and sewage disposal infrastructure from local authorities, citing their incapacity to deliver the services (Nyikadzino and Nhema 2015). Urban councils have argued that the transfer of water management to ZINWA greatly affected revenue inflows. They viewed it as a planned move to deprive them of their traditional source of revenue (Mushamba 2010).

The 2013 Constitution of Zimbabwe provides for devolution as a new theme for central-local relations. It provides that political power, policymaking, resource raising, and distribution, as well as administrative and governance responsibilities, are to be devolved through three tiers of government, which are national government, sub-national government (provincial and metropolitan authorities), and local governments (rural and urban councils). These constitutional provisions were further pronounced through the 2020 Decentralisation and Devolution Policy. However, the policy document is inclined to de-concentration and delegation forms of decentralisation rather than devolution as it gives the central government ultimate power to control local authorities. Although the policy document designates a lot of responsibilities from the central government to local authorities, there is no fiscal capacitation of local governments to meet the new responsibilities. The power to collect revenue from vehicle licensing and the sale of electricity is vested in parastatals, and the lower tiers of the government depend on financial transfers from the centre. Even the Constitution does not address the issue of central control. It provides for devolution funds, a misnomer, first because the funds are provided by the centre and second because the central government has been interfering with how local authorities use the funds (key informant 5). The funds are received by local authorities in bits and pieces, making it difficult for urban councils to plan for their use (key informant 4).

The policy environment has not allowed for sustainable urban development in secondary cities. At the centre of economic problems has been currency volatility. The rate of inflation has been very high, and the interest rate hovers around 210%. The government has not been consistent with the exchange rate, and this has been a great source of risk in the economy. Investor confidence has been dampened by changes in policies on the repatriation of profits. The unpredictable macroeconomic environment has made borrowing difficult as rational agencies can only borrow in the short term. Additionally, citizens would defer the payment of tariffs to benefit from inflation. Policy inconsistencies have affected the capacity of local authorities; for example, fuel dealers are allowed to sell dollars in the United States, while local governments are only allowed to demand payment in Zimbabwe dollars. Furthermore, unexpected policy directives from the central government have been a

source of uncertainty as when in 2013 toward harmonised elections, the Ministry of Local Government, Public Works, and National Housing directed urban councils to cancel debts owed by residents. In subsequent years, the directive has influenced residents to adopt a wait-and-see attitude, thus negatively affecting revenue inflow, as has been documented in the case of Chitungwiza City Council (Nyikadzino and Nhema 2015; key informant 1).

An issue of concern in centre-local relations has been the lack of trust between the centre and urban councils. Senior government officials see urban councils as lacking the capacity to plan, implement, coordinate, and review. Key informant 1 stated that urban councils lack tools of the trade, without proper billing systems, and the absence of properly packaged project proposals that can be considered for funding (key informant 1). Furthermore, senior management in urban councils is said to prioritise their benefits, for example, the purchase of executive cars at the expense of providing services to residents (key informant 2). This is often the case, but there is a severe shortage of high-quality human capital at all levels of government. But if things are so bad in cities, why does the central government not undertake the training and staff-monitoring programmes of the International Monetary Fund to bring local bureaucrats up to speed? On the other hand, urban councils, through the deprivation of local revenue, accuse the centre of 'hunting in the kraal' (key informant 4) and do not allow them to increase tariffs when parastatals like ZINARA and ZINWA easily get permission to do so (key informant 6).

A sense of responsible citizenship would improve revenue collection by urban councils, but some influential citizens are believed to be still in the war of liberation mode whereby they have a feeling of entitlement, resulting in them not paying their taxes (key informant 4). Old people have been observed to be more up to date with paying taxes than young people. Therefore, a call has been made to introduce civic education in schools. This would also require one not to owe any taxes if one wishes to stand for public office.

Despite the challenges in central-local relations, there is scope for secondary cities to broaden the local sources of revenue by harnessing diaspora remittances, but the challenge for central and local governments is to find a way for people to invest back home. This would require authorities to build trust and establish attractive funding vehicles.

11.5.2 South Africa: Relative Centralism

In South Africa, there has been an increasing interest in secondary cities in part because they are a relatively neglected subject on the urban agenda (South African Cities Network 2012; Roberts and Anyumba 2022). Secondary cities show strong demographic growth, catalyse development in their hinterlands, alleviate demographic pressure from the country's metropolitan areas, and are generally expected to offer a better quality of life than densely populated urban conurbations. Most secondary cities tend to be administrative centres because they host local

government structures, and provincial capitals that are not metropolitan centres fall into this category. Many have experienced growth on the basis of being agricultural markets or sources of mineral resources but need to diversify their economies if they are to become strong urban centres.

South Africa has a quasi-federal system of government that guarantees some taxing and borrowing powers to provinces. However, in the negotiations towards independence in 1994, the majority African National Congress (ANC) party favoured a strong centre (Dickvick 2007). The result was the 1996 Constitution of South Africa, which recognises three spheres of government and guarantees equitable sharing and the allocation of revenue raised nationally, that is, between the national, provincial, and local spheres. The national government is vested with all broad-based taxes, such as income tax, corporation tax, value added tax (VAT), excises, fuel levy, and customs, constituting about 80% of the total revenues. Sources of revenue for the provinces are very few and insignificant and include tax on gambling, motor car licence, and hospital fees. Municipalities have a more significant tax base where they can raise revenue from sources such as property tax, regional levies, and electricity/water user charges (Table 11.1). Compared to Zimbabwe, South African secondary cities have a broader revenue base since they can surcharge for electricity provision and receive transfers from provincial governments.

Secondary cities are largely able to finance much of their budgets from local revenues. For example, the percentage of own revenue for Polokwane was 53 for the financial year 2017/2018 and that for Gqeberha 72 (Roberts and Anyumba 2022). As a result, secondary cities require fewer intergovernmental transfers than provincial governments. In 2019/2020, local governments received 8.6% of national revenue (Republic of South Africa 2019). Urban finance is critical to the development of secondary cities, especially in providing funds for strategic infrastructure and capital investment. With much lower tax bases than big cities, secondary cities rely heavily on intergovernmental transfers (Yemek 2005; Roberts and Anyumba 2022). According to the 2019 estimates, local governments received 8.6% of national revenue as 'equitable share' in 2019/2020 (Republic of South Africa 2019). Division of revenue is made for 3 years under the multi-year budgeting system in South Africa. The estimates for the division of revenue until 2022/2023 are given in Table 11.2. In comparison, Zimbabwe's provincial councils and local authorities received 4.4 percent of the allocation in the 2022 National Annual Budget (Government of Zimbabwe 2021b).

Sustainable urban development requires a growing revenue base; however, secondary cities are heavily dependent on national revenue (Donaldson 2018; Yemek 2005). Intergovernmental transfers form the largest part of sub-national revenues. Data on financial performance show a decline in both transfer and local revenues.

Like Zimbabwe, but to a much lesser extent, South Africa has experienced a steady and gradual reduction of the fiscal autonomy of sub-national governments, including secondary cities, despite the pronouncement of devolution in the 1996 Constitution. Since the 1970s, intergovernmental fiscal relations in South Africa have become more centralised. Features of centralisation include (1) the abolishment of the local government regional service levy and the subsequent

Table 11.1 Revenue and expenditure assignments

Level of government	Expenditure functions	Revenue powers
National	Defence and intelligence	Income tax (personal)
	External affairs	Income tax (corporate)
	Criminal justice (police, prisons, justice)	VAT
	Home affairs	Fuel levy
	Higher education	Excise
	Welfare	
	Housing	
	Health	
	Education	
	Communications	
	Science and technology	
	Culture	
	Art	
	Land affairs	
	Environment and tourism	
	Minerals and energy	
	Trade and industry	
	Water affairs	
	Public works	
	Transport (national road and bus subsidies)	
Provincial	School education	Tax on gambling
	Provincial roads	Hospital fees
	Housing	License fees
	Welfare	Motor car fees
	Health (academic, hospitals, primary)	
Local	Electricity reticulation	Property tax
	Garbage collection	Regional levies
	Administration	Electricity/water use charges
	Municipal	
	Fire fighting	
	Municipal infrastructure (streets)	
	Water	
	Sanitation and waste	
	Water reticulation	

Source: Chakraborty et al. (2021)

establishment of a nationally collected and allocated local government share in the fuel levy and (2) the prospective new composition of regional electricity distributors, which is likely to remove electricity surcharge as a source of local government revenue (Calitz and Essop 2013). Since independence in 1994, the viability of revenue sources for secondary cities has been weakened by these centralist policies, limited access to well-trained staff, and increasingly constrained national government finances.

Table 11.2 South Africa – medium-term estimates of 'equitable share'

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
R billion	**Outcome**			**Revised**	**Medium-term estimates**		
Division of available funds							
National departments	555.7	592.7	634.4	742.8	757.4	766.2	796.2
Provinces	500.4	538.6	572.0	612.8	651.5	694.8	731.1
Equitable share	410.7	441.3	470.3	505.6	541.0	576.7	607.6
Conditional grants	89.7	97.2	101.7	107.3	110.5	118.2	123.5
Local government	102.9	111.1	118.5	127.2	132.4	143.0	152.2
Equitable share	50.7	55.6	60.8	69.0	74.7	81.1	87.2
General fuel levy sharing with metropolitan municipalities	11.2	11.8	12.5	13.2	14.0	15.2	16.1
Conditional grants	40.9	43.7	45.3	45.1	43.7	46.8	49.0
Provisional allocations not assigned to votes	–	–	–	–	21.2	34.9	33.1
Projected underspending				−3.2			
Total	1159.0	1242.3	1324.9	1479.6	1562.5	1638.9	1712.6
Percentage shares							
National departments	48.0%	47.7%	47.9%	50.1%	49.1%	47.8%	47.4%
Provinces	43.2%	43.3%	43.2%	41.3%	42.3%	43.3%	43.5%
Local government	8.9%	8.9%	8.9%	8.6%	8.6%	8.9%	9.1%

Source: Republic of South Africa (2019)

However, secondary cities have more scope to borrow money from the market, but only for purposes of financing capital expenditure. Municipalities are allowed to borrow from private markets for infrastructure development if they demonstrate their creditworthiness. A municipal council has the exclusive right to borrow without any national or provincial approval, and the obligation to repay is that of the municipality without any national or provincial liability (Government of South Africa 2017). Moreover, local governments can raise bonds as a form of debt financing, but most secondary cities have been conservative borrowers relying largely on fiscal transfers.

Secondary cities are more dependent on transfers than metros, although they receive less funding than metros on a per capita grant. To address revenue shortfalls, secondary cities should look at alternative sources of urban finance. Like in Zimbabwe, the trend has shown a decreasing role for the private sector in urban finance. The private sector had been the largest source of capital finance for municipalities. However, during the fiscal year 2015/2016, the public sector overtook the private sector to become the largest holder of long-term debt in South Africa. Public-private partnerships (PPPs) offer ways in which investment can take place outside the balance sheet of local authorities in respect of some local services – with the local authority playing a regulatory rather than a delivery role). PPP structures (such as water concessions) may facilitate direct access to private capital through the revenue base of the service in question rather than via the balance sheet of the local

government. Development charges are a tool worth adopting by secondary cities. A development charge is designed to pass on upfront costs to developers, who will in turn pass it on to their customers. Tax incremental financing is the most widely used form of development charge in South Africa. Applying the 'benefit' principle of public finance means that those who benefit the most from a product or service should pay in proportion to the value they derive from it. Tax incremental financing dedicates tax increments within a defined district to finance the debt that is issued to pay for the project. It creates funding for public or private projects by borrowing against the future increase in these property tax revenues.

Secondary cities can also use land-based strategies to finance urban development. A right to more intensive land development – a higher floor space index or floor area ratio may also be sold by secondary cities. These 'excess density rights' in effect represent the publicly controlled share of privately owned land. The development rights have economic value that can be sold by the local authority.

11.6 Discussion

For both Zimbabwe and South Africa, the findings reveal a difficult global and domestic macroeconomic environment. The ongoing global economic crisis, in part exacerbated by the COVID-19 pandemic and more recently the economic fallout from the war in Ukraine, has further constrained national government finances. In the deteriorating macroeconomic environment, particularly in Zimbabwe, many secondary cities are struggling to manage urbanisation, attract investment, and meet the demand for urban services.

Both countries are experiencing increasing centralisation, although to a greater extent in Zimbabwe. In South Africa, revenue-raising powers under the Constitution have remained highly centralised. Zimbabwe is making use of state-owned enterprises, specifically ZINARA, to finance urban infrastructure. Thus, through the Emergency Road Rehabilitation Programmes, the central government has taken over the maintenance of roads in cities. In taking over road maintenance, the central government cites a lack of capacity at the local levels. It has become an accepted article of truth that, upon attaining independence, African governments seek to consolidate power through centralism (Nyikadzino and Nhema 2015; Cirolia 2021). In Botswana, local authorities are simply an extension of the central government and are responsible for implementing central government policies at the local level (Dipholo and Gumede 2013). It has been noted that the financing of urban infrastructure in Africa – if it happens at all – tends to be through state-owned enterprises or public-private partnership (PPP) arrangements or directly into revenue-producing infrastructure projects.

In the case of Zimbabwe, the story has been of the centralisation of urban finance since independence in 1980 and before. In 1985, the government created the Zimbabwe Electricity Supply Authority (ZESA), which took over the supply of electricity to residents from local authorities, in the process creating a funding gap

for urban councils. Before the formation of ZESA, local authorities purchased electricity directly from the Central Africa Power Corporation (CAPCO) at a wholesale price, which they distributed to urban consumers for profit. The profits from the electricity account were used to subsidise urban public transport and also went into a tariff stabilisation fund. The formation of ZESA deprived the urban public transport system of an important source of subsidy until it barely existed. The Zimbabwe situation is complex. It is complex because, although centralisation is problematic, the main scourge that is putting a drag on the financing of secondary cities is corruption. 'Corruption occurs where the private search for economic advantage and personal advancement clashes with laws and norms that condemn such behaviour' (Rose-Ackerman and Soreide 2011: xiv). Legally, most land in peri-urban areas is owned by the government and local political elites, as well as ruling party structures rather than the opposition-led urban councils, allocate land parcels in violation of regulations. Corruption is a deep-seated problem in most secondary cities and has been extensively documented for the Chitungwiza secondary town, where there is rampant abuse of power by councillors and officials to amass property and solicit bribes for land, resulting in revenue finding its way into pockets of private individuals (Chiweshe et al. 2013; Muchadenyika 2020).

South Africa has a system of an equitable share of national revenues to local governments. The Division of Revenue Act, which is passed each year, considers consultations with the Finance and Fiscal Commission. In both Zimbabwe and South Africa, central government support for secondary cities has been declining over the past three decades, more so in the former country. As such, the fiscal viability of secondary cities is declining as there is growing dependence on intergovernmental transfers. In the near term, intergovernmental fiscal flows will remain a significant portion of secondary city budgets (Roberts and Anyumba 2022). In Zimbabwe, in an unstable political and economic environment, grants have increasingly become conditional (Marumahoko and Fessha 2011). Centralisation has neither brought about macroeconomic stabilisation nor improved equity – in the sense of the nationwide distribution of resources. At the local level, economies of scale have not been realised, and there has been no reduction in administrative and coordination costs. The shortage in transfers has resulted in unfunded mandates, and these are defined as the difference between the cost of delivering on a constitutional mandate and the constitutional revenue sources (Calitz and Essop 2013). Urban councils have responsibilities that are paid for by the central government through conditional grants, for example, the provision of primary health services. In Zimbabwe, the central government has not paid the nurse salary grant, thus imposing this responsibility and an unfunded mandate (key informant 4).

In view of the decline in central government support, secondary cities have been looking to alternative sources of revenue, such as land-based finance, public-private partnerships or concessions, and diaspora remittances. The land-based financing of secondary cities remains a future fiscal option because property tax is a relatively small contributor to revenue mobilisation in most African countries (Cirolia 2021). There is scope to improve collection not only through technological interventions

such as digitising cadastres but also through improved property valuation. Property developers can be charged impact fees, designed to cover the cost of providing truck infrastructure such as water mains and outfall sewers associated with the development. Another form of land-based finance is the sale of development rights. By granting development rights to developers, the value of the land increased. Secondary cities can sell, for example, the right to convert rural to urban land, to increase density, or to convert residential to commercial land, all of which increase the value of land. Secondary cities can lease out or sell public land, as is common in Addis Ababa or Luanda. The current challenge in applying land-based financing specifically in Zimbabwe is that most urbanisation occurs in peri-urban areas of secondary cities. These areas tend to be characterised by informality, illegal land subdivision and consolidation, and poor information systems, for example lack of addresses and databases.

Property taxation requires a good information system. Charging of impact fees and the sale of development rights are already being practiced in Zimbabwe and South Africa, but with less transparency, regulation, and enforcement in the former country. The same applies to land use conversion. In Zimbabwe, the option to sell or lease public land in peri-urban areas has been mainly deprived of secondary cities because the government sold most of the land to housing cooperatives aligned with the ruling political parties and private developers. However, in most cases, these entities have not provided infrastructure or services to peri-urban communities.

An urban service provision model that has been gaining application in both Zimbabwe and South Africa is PPPs or concessions. In Zimbabwe, currency and exchange rate inconsistencies have resulted in investors opting for PPPs where they enter a revenue-sharing arrangement with the local authority to cover exposure to risk. For example, by funding the development of water infrastructure, the investor can recover the invested funds through a share of the revenue from the sale of water to residents.

Zimbabwean secondary cities have the potential to use diaspora remittances for urban development. This is in view of the fact that in developing countries, many secondary cities are becoming heavily reliant on diaspora remittances to supplement household income and support local economic activities (Roberts 2014). Global aggregate data show that where there are economic downturns, the volume of remittances increases (Roberts and Anyumba 2022). Remittances have been significantly driving the development of secondary cities in many developing countries, especially in Asia (Roberts 2014). A study of four Latin American countries showed that most of the remittances go to secondary towns and cities (Ibid.). In 2020, Zimbabwe received US$1.0 billion in diaspora remittances (Government of Zimbabwe 2021a). To take advantage of remittances, secondary cities must build trust with people working in the diaspora. Secondary cities need to put in place structures that allow for the absorption of diaspora funds and their productive use. This includes creating financial intermediation opportunities for micro-funds, developing, and communicating pipelines of investment opportunities that remittances can be directed to.

In carrying out the comparative analysis of the two countries, the Zimbabwe situation was found to be worrisome not only because of polarised politics and devolution rhetoric but also because of the overall negative perception of the country in the Global North. The country is isolated from key players in the global economy due to human rights issues, and until it re-establishes its relations with the international financial community, resources for the development of sustainable secondary cities may remain limited. The current volatile macroeconomic environment is not conducive to financing development in secondary cities.

11.7 Conclusions and Recommendations

The findings of the study show that although the Constitutions of Zimbabwe and South Africa provide for the devolution of power and authority to sub-national levels, the trajectory in the financing of secondary cities has fewer similarities than differences. The similarity is that there has been a tendency towards centralisation in both countries, with secondary cities experiencing a decline in revenue base. In both countries, there is a growing dependence on intergovernmental transfers to local governments, which in Zimbabwe are becoming more conditional. In recent years, the two countries have experienced a shift towards public funding, with the private sector contributing less to the financing of urban development. Private investors have shown more interest in the revenue-sharing model than in the loan model of finance.

As a result of the persistent political and economic crisis partly attributed to the Fast Track Land Reform Programme, Zimbabwe has experienced macroeconomic instability and a deliberate move to control revenue by the central government. Key informants believed that the centre controls revenue because most urban councils, including secondary cities, are controlled by the main opposition political party. The sense is that by controlling revenue, the centre can control politics. Zimbabwe faces more urban financing challenges than its neighbours, mostly because of policy failures characterised by currency inconsistencies, weak exchange and interest rate policies, and a lack of consistent pronouncements on the repatriation of foreign currency. As a result, secondary cities have not been able to attract investment. Most urban development has occurred in peri-urban areas that are characterised by materially and institutionally fragmented informal settlements that do not contribute to revenue. They do not contribute to city revenue because they occupy public land that is exempted from the payment of local authority taxes. However, Zimbabwe is experiencing an increase in diaspora remittances, which can be leveraged for the development of secondary cities. South Africa also faces some challenges, but to a lesser extent, and indeed has some lessons to offer to its northern neighbour, particularly with respect to its approach to devolution that recognises spheres of government and an equitable share of national revenue so that the amount of transfers is not dependent on the wishes of the central government.

Currently, secondary cities do not have much to offer. The situation in the two countries has similarities in emerging models for funding urban development but broadly needs different solutions to prevailing problems. Secondary cities should look for alternative sources of finance, such as those based on property tax, land value capture, and public-private partnerships or concessions (Chavunduka 2021; Roberts and Anyumba 2022). This can be achieved through administrative and policy reforms, both of which can be supported by technological interventions. Key reforms can unlock the potential of property tax and land value capture through, for example, improving taxation mapping, property valuation, tax collection, enforcement, and transparency. The aim should be to improve the availability and integration of data that can be used to support overall systemic changes, rather than be a reform process in itself.

Some parting advice for Zimbabwe would be appropriate at this point. There is a need to adopt bipartisan rather than exclusive politics as a step toward building a stable macroeconomic horizon. This requires the development of capacity for policy analysis at high levels of leadership. The government should provide a consistent and stable policy environment. It also needs to work to improve the country's image and strengthen relations with the international community, including international financial institutions, to unlock development resources. With this, the financing of urban development in secondary cities will have received a boost.

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Chapter 12
Sasolburg: A Town Built Around the Chemical Industry Suffering Under Poor Governance and Its Environmental Legacy

Verna Nel, Mareli Hugo, Abraham R. Matamanda, and Mark Oranje

Abstract Sasolburg is one of the 'new towns' in South Africa developed during the 1940s and 1950s to house employees at nascent industrial and mining locations as part of South Africa's industrialisation drive. It is linked to the petrochemical industry, specifically the development of Sasol, which refined the coal-to-oil process and is now the leading petrochemical manufacturer in the country. Although Sasol has played a pivotal role in the development of South Africa and is considered the industrial hub of the Free State, it is also the second-largest emitter of greenhouse gases in the country. This article traces the development of Sasolburg from its inception to its current situation within the Metsimaholo Municipality and its continuing dependence on the petrochemical industry.

Keywords Sasolburg · Sasol · Coal-to-oil · Petrochemical industry · New town · Pollution · Metsimaholo

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12.1 Introduction

The city of Sasolburg is one of the 'new towns' in South Africa developed during the 1940s and 1950s to house employees of the nascent industrial and mining locations established as part of South Africa's industrialisation drive and plans to employ 'poor whites' in the first half of the twentieth century (Freund 2020; Sparks 2012). It forms part of the Vaal Triangle, an industrial node established on the banks of the Vaal River, along with Vanderbijlpark – a new town established in 1943 to boost the emerging iron and steel industry – and a state-owned company, ISCOR. The area is rich in coal, essential for both iron and steel manufacturing and the coal-to-oil and gas manufacturing process, with water provided by the Vaal River. Sasolburg is linked to the petrochemical industry, specifically the South African Coal, Oil and Gas company, now known as Sasol, which refined the coal-to-oil process. Although Sasol previously depended on the coal mined around the town, it now uses gas from Mozambique. The city is the headquarters of the Metsimaholo Local Municipality and the Fezile Dabi District Municipality.

Sasolburg was chosen as a case study for this book due to its unique origins as a company town established for the state's focus on economic development and self-sufficiency, which occurred at the expense of the environment. An element of the development of the two new towns was for the newly elected National Party to prove to all that white Afrikaners were as capable as the English. At the same time, it exposes starkly different approaches to the urbanisation of the apartheid government: well-planned and managed suburbs for whites but hostels and townships for blacks to limit the urbanisation of the black population, confining them to ethnically demarcated 'homelands' or bantustans (Freund 2007). According to this policy, only (male) workers were allowed in 'white' South Africa. As they were viewed as temporary lodgers, the plan was to confine them to hostels that could be easily controlled. However, since it was impossible to prevent the urbanisation of the black population, they were housed in 'townships', separated from white suburbs by buffers, such as railway lines, main roads, or, as in the case of Sasolburg, industrial areas. Zamdela is the township associated with Sasolburg. Sasol has contributed to the industrial development of South Africa and is known as the Industrial Hub of the Free State today. Sasol contributes about ZAR 13 billion to the national gross domestic product (GDP) and employs more than 26,000 people (Sasol Limited: online).

Despite the significant contribution of the city to the country's economy, along with so many municipalities in South Africa, it suffers from poor governance and service delivery. Furthermore, Sasol has been accused of undermining the Zamdela area (Sparks 2019) and general degradation of the environment (Groundwork 2003; Maponya and Rampedi 2013; Moshyana 2013; Weissflog et al. 2004). However, it has refuted these accusations (Fig. 12.1).

In researching this chapter, the authors consulted multiple sources of information on the history, development, and current situation of the city. These included scholarly books and articles; grey literature such as dissertations and theses; official

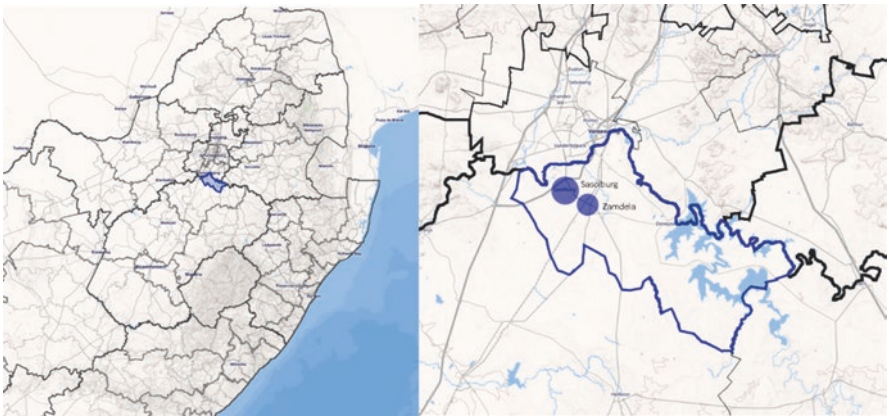

Fig. 12.1 Location of Sasolburg. (Source: Spatial Data Services 2022)

reports by government agencies, including the local and district municipality; and newspaper articles. Additionally, Spatial Data Services Africa (Pty) Ltd. provided much of the population data. These secondary sources were complemented by interviews with municipal officials and a range of businesses (large, medium, and small) in the area. It was hoped to interview at least four municipal officials, two local councillors, and numerous enterprises (owners or employees), with an equal number of respondents from large, medium, and small businesses. However, most of those approached for interviews were reluctant to participate in the research. Only three municipal officials, two local politicians, and six businesses were interviewed through telephonic interviews based on a structured questionnaire.

The next section provides the chosen theoretical framework – the development conflicts between the economy, the environment, and equity and their applicability to Sasolburg. Section 12.3 describes the planning and development of Sasolburg. Thereafter, Sect. 12.4 provides an overview of the population and economy of the Metsimaholo municipality, followed by discussions of the governance, development, and management challenges of the municipality and the environmental problems caused by seven decades of mining and manufacturing. We conclude the chapter with thoughts on the future of the city and its dominant industry.

12.2 Sustainable Development and the Development Conflict

Sustainable development is commonly quoted as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (World Commission on Environment and Development (WCED) 1987). It implies intergenerational equity and a balance between the use of natural resources and human needs. Other definitions include geographical and procedural equity (Haughton 1999). Several authors have criticised these definitions of sustainable

development as merely a 'greenwash' that panders to neoliberal capital interests (Castro 2004; Du Plessis and Brandon 2015; Jabareen 2006) and neglects the dire state of the environment. Connelly (2007) notes that there are several approaches to dealing with conflicts, contradictions, and ambiguities in the definitions. These may simply be ignored, or a definition that suits the situation, organisation, or author is adopted, such as an emphasis on the environment or equity and poverty reduction (Jabareen 2006). Two decades ago, Haughton (1999) identified this range of definitions and pointed out that sustainable development is about changing human behaviour from exploitation to regenerative development (Du Plessis 2012):

> Sustainable development, then, is about recognizing and accepting our responsibilities not just for where we live, but more widely for the environment at a global scale. In order to do this, we need to look beyond the environment itself, to the broader economic, social, and political systems within which human decisions are made. Fundamentally, sustainable development requires not just altering behavior patterns in relation to the environment, but about changing the broader systems that shape human behavior (Haughton 1999: 234).

Berke and Manta Conroy (2000: 23–23) developed principles that should guide planners towards more sustainable growth. These are (1) harmony with nature, which includes protecting ecosystem services and biodiversity; (2) building liveable environments that adapt to the needs of residents and users and protect unique features; (3) an economy that functions within the limits of the environment and fosters liveable environments that meet local needs; (4) equitable access to a healthy, dignified environment and social and economic services; (5) polluters paying for damages (and reparation costs); and (6) limiting the detrimental impacts of local actions on other places (geographic equity). These principles are the basis of their expanded definition of sustainability as the need to:

> … foresee and shape the scope and character of future development, identify existing and emerging needs, and fashion plans to assure that those needs will be met and that communities will be able to continuously reproduce and revitalize themselves. By this definition, built environments become more livable; ecosystems become healthier; economic development becomes more responsive to the needs of a place rather than furthering the profits of a powerful few; and the benefits of improved environmental and economic conditions become more equitably distributed (Berke and Manta Conroy 2000: 22).

Sustainable development is often symbolised by three intersecting circles representing the environment, the economy, and society, each enjoying equal status, which seldom occurs in practice. Campbell (1996, 2013, 2016) recognised the unequal weights of these domains. He described these goals as the corners of a triangle that depicts some of the competing demands of sustainable development, where the sides of the triangle represent conflicts between the points.

The axis between social justice and equity and environmental protection reflects the development conflict. This conflict is evident in the Global South, where marginalised residents are forced to use local resources for their immediate need to survive while recognising longer-term impacts on the environment. The second area of contestation is the property conflict, which juxtaposes the economy and the need for social justice and redistribution of resources. Gentrifying neighbourhoods, slum clearance for new buildings and infrastructure, or the relocation of 'squatters' to

peripheral locations for mega events (Maharaj 2015) are examples of this area of contestation.

The axis between the environment and economic development is a conflict of resources. It is experienced in mining regions, where the landscape and ecosystems are sacrificed for financial gain. Clearing tropical forests for plantations and rangelands is another example of this conflict arena. The need for investment, revenue, and employment drives many communities to accept the despoiling of land for the anticipated financial gain (Walker and Salt 2012).

As the remainder of this chapter will explain, all conflicts are evident in the development of Sasolburg/Zamdela. The government of the day had little concern for the environment as its focus was on economic growth and reducing dependence on oil imports. All residents have suffered the impacts of air and water pollution, land despoilation, and undermining, while the harsh social injustices of apartheid are still obvious.

12.3 Planning and Development of Sasolburg

Sasolburg was developed as a company town to serve the new Sasol company, established to extend the Fischer-Tropsch coal-to-oil process, reduce South Africa's dependence on oil imports, and prove to the world that the National Party Government was capable of governing despite opposition to its apartheid policies. It took several years for the process to be sufficiently refined to become profitable (Oranje 1996). In 1973, due to the oil crisis, a second plant and then a third were required, both built in the new town of Secunda, which now concentrates on manufacturing petroleum and related products such as aviation fuel. The Sasolburg plant currently focuses on chemical production from imported natural gas (Sasol 2022).

The choice of a site for the Sasol plant and, thus, the town depended on proximity to a rich coal seam, a reliable water source, and good rail transport, along with proximity and easy access to Johannesburg, the economic centre of South Africa. All these were available at the chosen site. Therefore, the town was located adjacent to the Sigma coal mine and the infamous Coalbrook mine, where 435 men were killed in one of South Africa's worst mining accidents. The Sasol plant was located between Sasolburg and Zamdela, with space for easterly extensions for Sasol and other chemical companies. The town was developed by a subsidiary of Sasol and strictly controlled by this company for many years, despite the appointment of a Village Board of Management in 1954 by the provincial authority (Kirchhofer 1982).

Sasolburg's planning, undertaken by Max Kirchhofer, was based on the English garden cities and green-belt new towns, along with the Radburn principles of separation of mobility and access functions of traffic (Ben-Jospeh 2005). Another key characteristic that was included in the development of Sasolburg was the creation of 'self-sufficient' precincts with a primary school and all other facilities required to make day-to-day living centrally accessible. The centralisation of day-to-day living facilities increased accessibility and decreased the transportation needs of the

residents. Open spaces with lush landscaping were intended to connect the precincts and create safe routes for residents to walk to shops or schools (Brockett 1996; Kirchhofer 1982). However, residents on the outskirts of Sasolburg were still dependent on vehicle transportation. Each precinct was simply numbered 'Woondeel (residential precinct) 1', 'Woondeel 2', etc. The size and finishes of sites and houses in each precinct reflected social stratification within the white areas (Kirchhofer 1982; Sparks 2012).

Sasolburg was initially planned for some 40,000 people (10,000 whites and 30,000 blacks) (Kirchhofer 1982). The layout had a central focus in the form of a town centre to promote centralised development, ultimately developing the city into a closed circle (Kirchhofer 1982). Over time, the original circular layout was adapted as more precincts, based on the original design principles, were added (23 in total). The urban layout adopted a curved and flowing street pattern. The town evolved with changes in population, living standards, and society (Kirchhofer 1982). Development on the city's outskirts departed from precinct principles, following no set layout and developing as the need arose.

The planned densities were 25 people per hectare for the white area. Most of the housing consisted of single-detached units (75%), and the remainder consisted of townhouses and apartments. Large sites were allocated for group housing and apartments, with garden spaces surrounding them. Single white men were housed in hostels with dedicated recreation facilities (Freund 2020). Emphasis was placed on developing units concurrently with gardens and open space (Kirchhofer 1982).

As the town was developed during the apartheid years, there were separate areas for white and black residents. Although the planners intended to adopt the same planning principles for both black and white precincts (Kirchhofer 1982), these ideals were scuppered by the apartheid government, which strictly enforced the separation of white and black residential areas and insisted on hostels for 'migrant' black workers instead of family housing (Mphambukeli 2019). However, SASOL insisted on controlling their workers' housing; thus, family housing was permitted (partially to retain increasingly skilled labour). Although these residents soon revealed similar aspirations as their white contemporaries (Marais 2018), the reality was that Zamdela had far fewer trees or paved streets and the paths were unkempt, littered, and dangerous (Freund 2020: 91). Furthermore, the effect of discrimination and segregation is visible in the higher densities. According to Sparks (2012, 2016),[1] informal settlements sprang up once the first shafts of the Sigma mine were completed and still exist on the fringes of Zamdela. However, intensive control of the town and surrounding areas would have curtailed such informality during those early years. Existing mining activities to the east and west of Sasolburg/Kamdela now limit the expansion of the area (Metsohaholo 2022: 60; Sparks 2019: 9, 12).

[1] Sparks (2012, 2016, 2019) discusses the deplorable treatment of Black workers and their families during Apartheid in the Sasol company and its towns.

In Sasolburg, and even more so in Zamdela, the social principles of Ebenezer Howard's Garden Cities, communal land ownership, and a better living environment were neglected. Zamdela residents had to contend with low living standards and a lack of services and facilities and were surrounded by industrial pollution (as they were downwind of the Sasol plant and waste disposal area). The latest town planning ideas, such as Howard's garden city, Perry's neighbourhood unit, and Radburn's layout (see Ben-Jospeh 2005), informed the design of the town, along with Kirchhofer's own ideas and ideals regarding creating liveable areas. However, for Brockett (1996), the transfer of design ideals – such as garden cities – to South Africa, given the differences in culture, lower densities, and an obsession with safety and security, has not been as successful as desired. Freund (2020) echoes the sentiment that urban design alone will not lead to sustainable cities. Management is equally important. The tight control and management of Sasolburg, when under the control of the company, meant that its lush green walkways were safe and convenient to use. With the new municipal dispensation, the level of control and management of open spaces has dissipated as local governments struggle to provide services to their communities (Auditor General 2021).

12.4 Demographics of the Metsimaholo Municipality

Since 1993, the local government system has changed significantly. In addition, the municipal boundaries have changed with each local government election. Sasolburg, Zamdela, and several small towns were incorporated into the Metsimaholo Local Municipality, and official data are currently linked to the municipality and not the previous towns. The data in the following table have been adjusted using statistical methods to accommodate changing boundaries.

12.4.1 Population

Initially, the population of Sasolburg and Zamdela grew slowly from a few thousand people in the 1960s to 20,600 whites (Kirchhofer 1982) in 1972. In 1996, the population of Metsimaholo was just over 107,000; about 163,000 in 2016; and more than 187,000 by 2020. Most of the respondents interviewed noted this steady increase in population. Given the past population growth trajectory – an average growth rate of 2% (Metsimaholo Local Municipality 2022) – the anticipated population in 2024 will be about 183,500 persons and about 6500 households. The white population decreased from 30,000 to 27,000 between 1996 and 2016 (Spatial Data Services 2022).

The excess of males over females is typical of manufacturing and mining communities that attract labour. Table 12.1 indicates the population by group in the municipality. Although the population has increased by more than 50,000 people, the ratio of whites to blacks has halved since 1996 from 0.4 to 0.2 in 2016. The

Table 12.1 Metsimaholo population and gender: 1996–2020

	1996	2001	2011	2016	2020
Males	55,629	59,018	77,600	85,533	98,903
Females	51,393	56,767	71,449	78,036	88,033
Population density (persons/ha)	0.38	0.67	0.87	0.95	±1.09
Total population	107,022	115,785	149,049	163,569	187,187

Source: Spatial Data Services (2022)

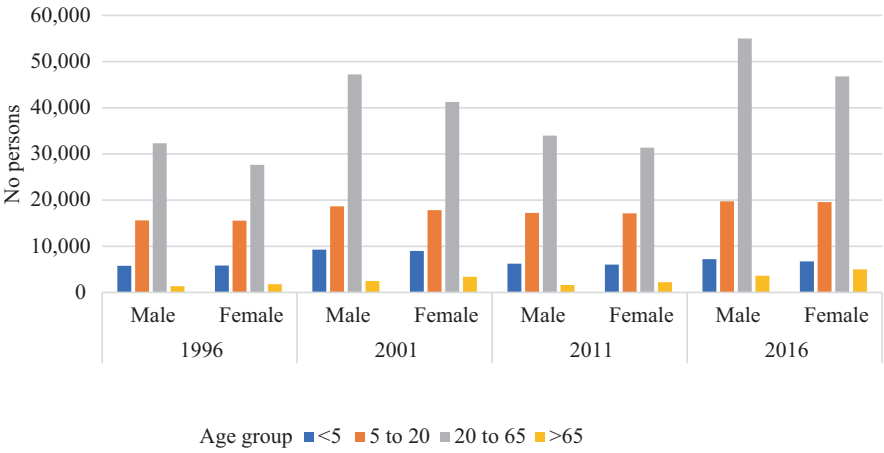

Fig. 12.2 Age structure. (Source: Spatial Data Services 2022)

number of female-headed households increased by nearly a third after 1996 but has stabilised since 2001 at roughly 33% of the total. However, since households headed by women often have a lower income than their male counterparts (StatsSA 2022b), the increasing number of households headed by women is concerning.

The age structure of the population is indicated in Fig. 12.2. Preschool children are below 5 years, school-going ages are from 5 to 20 years, economically active persons are included in the 20 to 65 age group, and over 65 s are the elderly. The number of economically active people has fluctuated since 1996. While the number of preschool children is relatively stable, the number of elderly people has grown, which could be evidence of place attachment, often linked to the ownership of a state-subsidised dwelling.

The WorldPop data (Tables 12.2 and 12.3, Figs. 12.2 and 12.3) provide a more nuanced picture of the age and gender structure. Most of the residents fall into the economically active age bracket.

Sesotho is the dominant language in the municipality and is spoken by two-thirds of the people. Afrikaans follows (15%), with IsiZulu and IsiXhosa at 5% each. English is spoken by just under 3% of people. The other national languages together comprise the remaining 2.3%. Although the total number of households has more than doubled, household sizes have decreased since 1996, probably due to (1) the

Table 12.2 Population groups, 1996–2016

	1996	2001	2011	2016
Black	75,818	93,756	122,683	134,076
White	30,099	21,239	24,372	27,704
Coloured	464	593	1061	1291
Indian	138	198	470	498
Other	502	NA	463	NA
Total	**107,022**	**115,785**	**149,049**	**163,569**

Source: Spatial Data Services (2022)

Table 12.3 Population by age group and gender, 2020

Age group	Description	Male	Female	Total
0–5	Preschool age	8539	8323	16,862
6–13	Primary school age	12,511	12,401	24,912
14–18	Secondary school age	7330	7140	14,471
19–35	Young adults	32,557	26,384	58,941
36–65	Adults	33,745	28,960	62,705
66–75	Senior adults	3149	3501	6650
Over 75	Elderly	1323	1323	2647
	Total	99,154	88,033	187,187

Source: Spatial Data Services (2022)

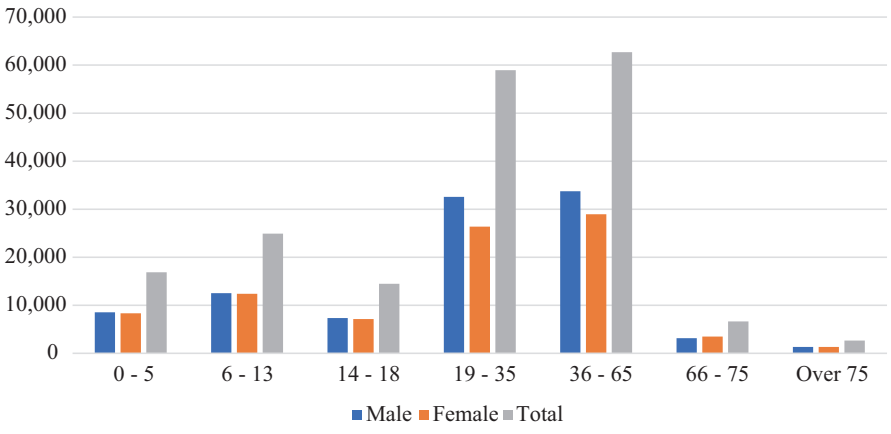

Fig. 12.3 Population per age group and gender 2020. (Source: Spatial Data Services 2022)

decanting of overcrowded dwellings into separate homes, (2) the effects of urbanisation, and (3) the general trend towards smaller families. The doubling of the number of households is reflected in the slowly growing density of people in the region. The low overall density can be attributed to the largely rural nature of the municipality. See Fig. 12.4 for a depiction of the building density.

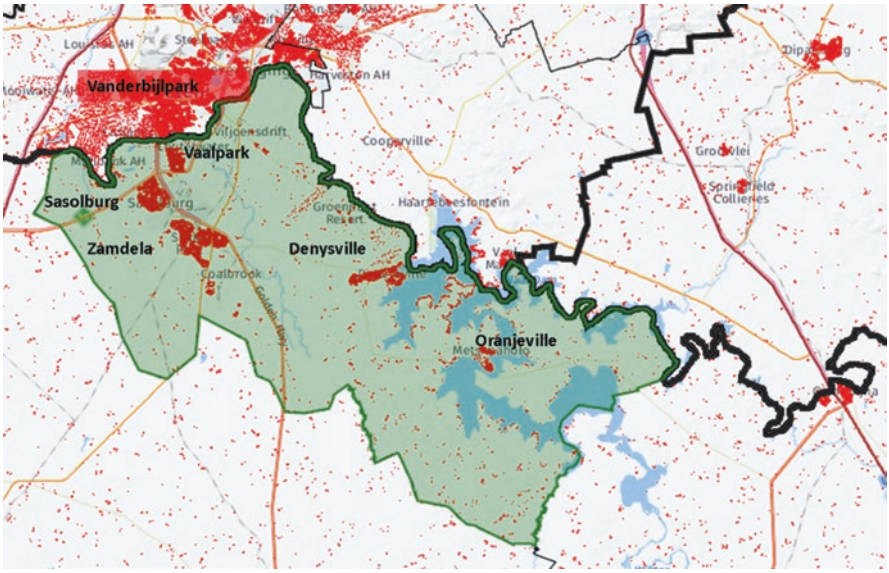

Fig. 12.4 Structure density in Metsomoholo 2018. (Source: Spatial Data Services 2022)

12.4.2 Education

The number of people who completed their schooling (matric) has increased since 1996. However, fewer people have completed any form of tertiary education (see Fig. 12.5). Business respondents have noted an increasing number of job seekers, but too few people with the skills required by industry:

> The skilled population increased only because industrial areas are willing to teach those that do not have a skill. A lot of people with higher education move away after a while looking for better jobs (Medium-sized business respondent).

> The town has skilled people, but not enough. A lot of workless people who asked for jobs or apply, do not have any [required] qualifications. They will have matric or grade 10. Some will have skills, but not great skills. People who work in industrial areas are skilled since the industries train them. But there has been an increase in the number of students that finish matric (Sasol respondent).

12.4.3 Income and Employment

Figure 12.6 suggests that income declined between 1996 and 2011 and that since 1996, more households have smaller incomes, while the number of high-income households has decreased, consistent with the educational profile, indicating fewer

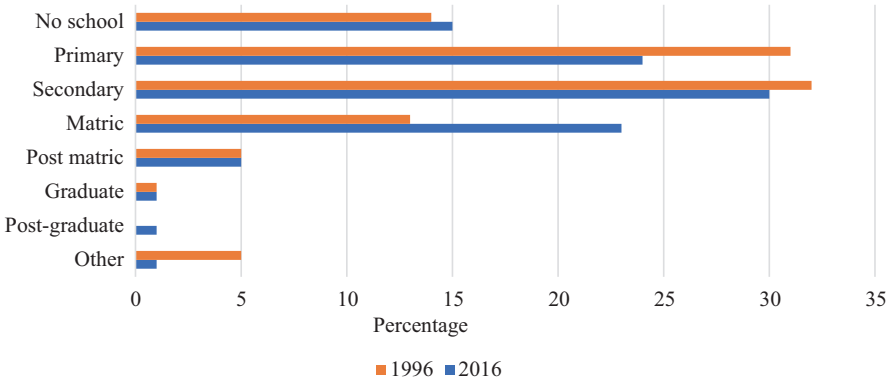

Fig. 12.5 The highest level of education achieved. (Source: Spatial Data Services 2022)

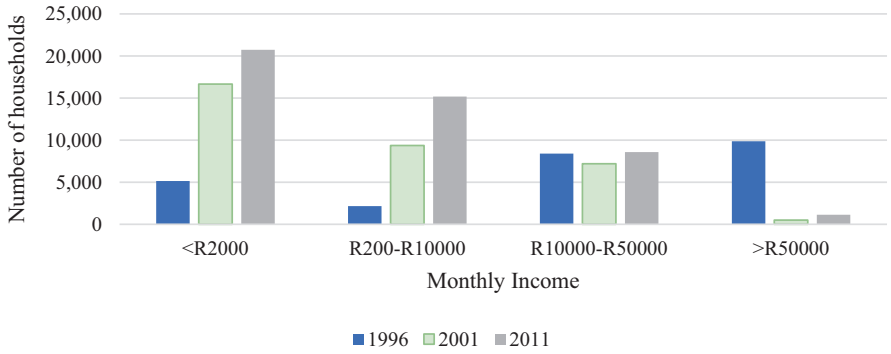

Fig. 12.6 Household income per month in 2011 rand values (Source: Spatial Data Services 2022)

people with tertiary education than in 1996. According to the Fezile Dabi (2020), approximately 43% of households live below the poverty line in the Metsimaholo LM.

The unemployment rate in 2018 was about 32%, with youth unemployment estimated to be in the region of 42% (Municipal Demarcation Board (MDB) 2018a, b), which may have increased in line with South Africa's national post-COVID-19 unemployment rate, which was 34% in June 2022 (StatsSA 2022a). The dependency ratio was 44.3 in 2011, which dropped to 40.8 per 100 people in 2016 (Municipalities of South Africa 2022) in Metsimaholo LM.

The chemical industry built around Sasol is the most important in the municipality, and this is evident in the employment per sector (see Fig. 12.7). Manufacturing in Metsimaholo accounts for more than double the national average, while employment in the government, community, social, and personal services is lower than the national average. In addition, agricultural employment is much lower in Metsimaholo than in the district municipality.

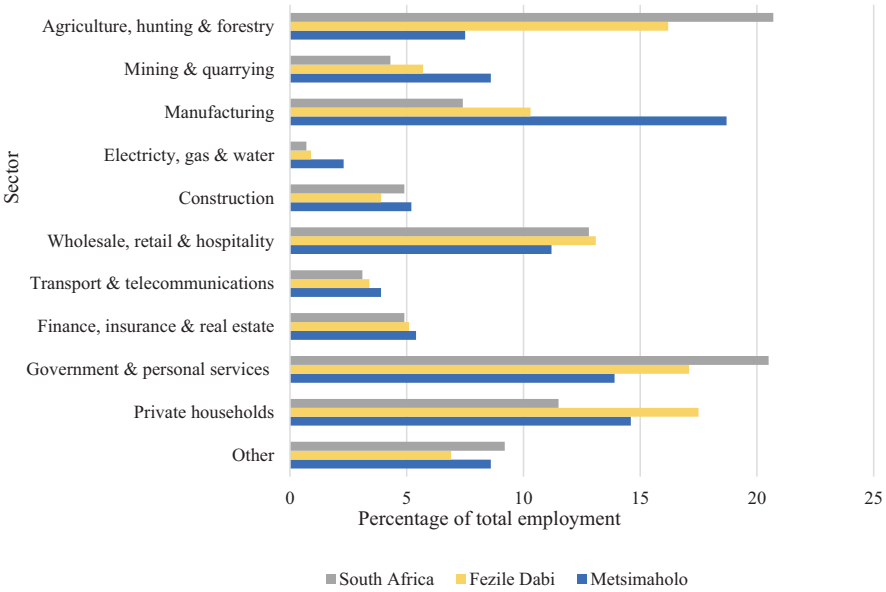

Fig. 12.7 Percentage of employment per sector. (Sources: MDB 2018a, b)

12.4.4 Economy

Sasol has played a key role in the local economy, and by establishing South Africa's chemical industry, it has been critical for the national economy. In addition to the chemical industry, there are also backward and forward links to other economic sectors that have benefitted from Sasol. The location quotient that measures an area's specialisation is indicated in Table 12.4. A ratio greater than one means that the region employs more people in that sector than the national economy and is a net exporter, which means that it is a driver of the local economy. A ratio below one means the opposite. The dominance of manufacturing and mining (gold, coal, and diamonds), along with a slightly higher location quotient of government services, is evident in the provincial economy.

Table 12.4 indicates that manufacturing, utilities, and construction are the leading contributors to the District economy. This is confirmed by the gross value added (GVA) data, which indicates that manufacturing far exceeds any other sector (Table 12.5).

The Tress index is a measure of the dependence of an economy on a few sectors or the diversity of the economy. An economy that has a range of sectors is generally able to better withstand fluctuations in the local or international economy. The more diverse an economy is, the lower is the index, and the reverse is true with a number closer to 100. Metsimaholo's economy has an index just below 50 (see Table 12.6), which indicates not only some diversity but also high dependence on a few sectors.

Table 12.4 Location quotient – the drivers in the local economy, 2018

Level of comparison	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Logistics	Business services	Community services	Government services
District economy	0.25	1.07	1.55	1.49	1.22	0.76	0.79	0.85	0.68	0.63
Provincial economy	0.25	1.14	3.45	1.81	1.36	0.60	0.64	0.61	0.52	0.52
National economy	0.37	1.73	2.72	2.38	1.02	0.72	0.59	0.44	0.68	0.51

Source: Spatial Data Services (2022)

Table 12.5 Gross value added at basic prices (R'million)

	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Logistics	Business Services	Community Services	Government Services	Total
2018	622	4690	**27,125**	2762	2292	3079	2640	4153	1652	2830	51,846
2019	551	3578	**27,464**	2879	2394	3255	2768	4344	1759	3007	51,998

Source: Spatial Data Services (2022)

Table 12.6 Tress index – level of specialisation in the local economy

Geography	1995	2000	2005	2010	2015	2016	2017	2018
Metsimaholo	44.5	49.8	48.3	48.1	49.5	50.1	49.4	49.2

Source: Spatial Data Services (2022)

Table 12.7 Services provided by the municipality

	2019/20	2018/19	2017/18	2016/17	2015/16
Water					
Number of customers	54,929	51,590	49,417	49,417	59,113
Inside the yard	47,474	45,325	45,325	45,325	48,185
Less than 200 m from the yard	40	2600	427	427	2537
More than 200 m from the yard	3750	0	0	0	4561
Indigent households with free basic service	10,151	8386	8434	8369	27,291
Electricity					
Number of customers to whom provided	51,927	51,893	51,893	51,074	38,063
Indigent households with free basic service	6540	8340	7407	5981	5116
Sewerage and sanitation					
Number of customers	51,062	40,450	39,909	31,226	43,826
Number of households using:					
Flush toilet – public sewerage	41,247	34,391	33,850	23,696	23,696
Flush toilet – septic tank	3617	696	696	1200	1200
Ventilated pit latrine	0	0	0	0	0
Bucket system	2533	1533	1533	2500	2500
Other	0	0	0	0	12,600
Domestic households with access to free basic service	9168	9176	5463	44,269	29,043
Solid waste services					
Number of customers	50,296	49,000	49,000	49,000	47,000
Indigent households with free basic service	7766	7766	7776	7233	7242

Source: https://municipalities.co.za/services/1040/metsimaholo-local-municipality

The land impacted by development has increased between 1990 and 2018 by more than 1000 ha and 1500 ha, respectively, while the land used for agriculture has declined by more than 3500 ha in this period (Spatial Data Services 2022).[2]

According to the Municipal Demarcation Board (2018a), 85% of households live in formal dwellings built of bricks and mortar/concrete. Table 12.7 shows some of the progress and state of services provided by the municipality.

[2]The land cover data for 1990 and 2014 are directly comparable. However, the categories were changed for the 2018 land cover. The data for 2014 and 2018 must be compared with caution.

12.4.5 Environmental Issues

Human activities have impacted the environment for centuries as the spread of agriculture and cities encroached on and transformed natural habitats, while mining and manufacturing have devastated landscapes (Cavanagh et al. 2022; Cook et al. 2022; Diamond 2005). Similar processes still affect many areas today. The Sasol plants in Sasolburg and Secunda have been identified as the principal sources of air pollution for many years, affecting people and crops (Bega 2019; Maponya and Rampedi 2013; Moshyana 2013; Weissflog et al. 2004). Residents have blamed the company for their respiratory diseases (Faku 2018). Non-governmental organisations (NGOs) have recently won a court case against the government to force it to ensure that Sasol (Secunda plants)[3] and Eskom comply with environmental management legislation (Bloomberg 2022). This matter was also discussed at a Parliamentary Monitoring Committee meeting (PMG 2021b). However, Sasol's response to these allegations has been that its carbon emissions are within legal limits, that it has achieved a 27% reduction in energy use, and that it wants to achieve zero carbon emissions by 2050. It is also planning to produce green hydrogen clusters with partners (Sasol 2021; Creamer 2022). Two of the conflicts identified by Campbell (1996) are evident: the resource conflict of clean air with respect to the power of large companies and environmental justice where the local community enjoys the benefits (and not only the costs) of economic development. It should be noted that the benefits have been skewed towards the affluent (mostly white population), while the externalities have predominantly been borne by blacks.

One of the reasons for locating the ISCOR and Sasol plants next to the Vaal River, one of the largest rivers in South Africa, was to use the river for waste disposal (Marais et al. 2016a, b). In 2018, Sasol was accused of dumping effluent from its plant into the river (Faku 2018). However, according to an article in the Water and Sanitation Africa trade magazine (2022), Sasol is the only private company to be recognised for its top-performing wastewater treatment systems.

12.4.6 Governance

Under apartheid, black urban areas were generally administered by a national department and later by 'puppet' local administrations, while white areas had their own local councils. These councils, especially in the Free State, had little autonomy, especially with respect to urban and regional planning. From 1990 onwards, there were a series of negotiated transitions to democratic municipalities. This included numerous changes in boundaries to ensure that the new dispensation of local government included their functional areas and disadvantaged areas, whether in 'townships' such as Zamdela or former homelands.

[3] The Secunda plants are reputed to have one the highest points of carbon emissions in the world.

According to the South African Constitution, the local government has considerable autonomy regarding its financial planning and management. Other spheres of government (i.e., national and provincial departments) may only intervene in local government affairs under specific circumstances. Municipalities have three main sources of income: property rates, income from payments for services (e.g., water and electricity), and grants from the national government. The latter includes a grant to cover some essential services for indigent households and an infrastructure grant. The provincial government can also allocate funds to prepare serviced sites and state-subsidised houses.

In 2000, three types of municipalities were established: local municipalities (LMs), district municipalities (DMs) that have two or more LMs within their area of jurisdiction, and metropolitan municipalities that have the functions of both LMs and DMs (Nel and Minnie 2022). Sasolburg is part of the Metsimaholo LM and the Fezile Dabi DM.

The Metsimaholo LM has experienced various governance issues over the past 6 years, including an uprising against the inclusion of Parys (a neighbouring town) in the municipality (Marrian 2013). These problems prompted the Free State provincial government to intervene in its affairs. According to the province:

> since the election of the Metsimaholo municipal council in 2017, it has not appointed senior managers, and the Municipal Manager of the municipality was placed on suspension on 03 July 2018. The municipality also has operated for some time with middle managers acting as section 56 managers,[4] Municipal Manager and Accounting Officer [CEO]. The municipality has also been struggling with vacant senior management positions, alleged political interference, regression in audit outcomes and governance oversight as well as a deterioration of systems of internal controls, among other issues (Parliamentary Monitoring Group 2021a).

The governance woes of the municipality are reflected in its audit outcomes, a qualified audit, since 2017/2018 (National Treasury: online), as well as its ability to undertake and implement strategic planning. As one respondent from a medium-sized business commented, ‘Strategies are listed, but due to financial reasons and poor administration skills, the municipality struggles to implement and complete these strategies’, while a small business respondent noted: ‘The municipality has goals and strategies, but not everything gets implemented and some projects are uncompleted.’

Due to the governance problems of the municipality, the service delivery has faltered.

> The municipality tries, but it is not enough. By giving new strategies every few years and not implementing anything, nothing will change. The community has been complaining about service delivery for a long time, and nothing has changed. (Business respondent).

The informal settlements have been expanded, and the municipality cannot keep up with this growth. According to businesses and the municipal respondents, a community organisation, the Sasolburg Community Action Group, is working to

[4] Section 56 Managers report the municipal manager (CEO and chief accounting officer).

provide some services. The municipality is responsible for water, sanitation and sewerage systems, electricity reticulation, and waste removal. However, due to a lack of maintenance, many services are in disrepair. As the business respondents noted:

> Service delivery has been poor due to damaged infrastructure. The municipality tries to repair the damaged infrastructure, but they are not always capable. The community, however, has jumped in, and those with the skills to repair things have taken the opportunity to teach others as well.
>
> The Sasolburg Community Action Group aims to work with the local Metsimaholo municipality and other stakeholders to assist the residents of Sasolburg and surrounding areas with infrastructure services and maintenance.
>
> Some infrastructure gets fixed and service delivery has gotten better [but] it is still does not run smoothly.

Municipal respondents acknowledged some of the problems facing the municipality but indicated that Metsimaholo is trying to improve its service delivery. These problems are not unique to Metsimaholo. In recent reports on municipal performance, the Auditor General (AG) (2020, 2021) has exposed serious governance issues in South African local governments, such as wide-scale corruption; poor management, partly due to the appointment of inadequately skilled people in key posts; limited maintenance of infrastructure that is deteriorating to a point where it will have to be replaced; and a complete lack of accountability by senior staff and politicians. In addition, Pieterse (2021) and Nel and Minnie (2022) have pointed to legal, structural, and systemic problems in the conceptualisation of local government.

Unlike most metropolitan cities and regions, secondary cities seldom have diversified economies, which makes them vulnerable to fluctuations in the national and local economies (Marais et al. 2016a, b; Marais and Nel 2019; SACN 2020). As apartheid restrictions on the movement of Africans were lifted, rapid urbanisation of cities occurred, requiring the extension of infrastructure to accommodate new developments (Pieterse 2021). Today, most urban areas with viable economies attract job seekers, creating a demand for urban services.

One of the main income streams of municipalities is the charge on the provision of services, i.e., water, electricity, and refuse removal. However, given the scarcity of water in most of South Africa, households are encouraged to use water sparingly. Eskom, the power utility, cannot meet the demand for electricity, leading to rolling blackouts. In response, many households and large companies have turned to PV solar generation. From a climate change perspective, these actions are commendable, yet they have reduced the potential municipal income from wealthier households. Many lower-income households cannot (or will not) pay their service charges. Consequently, municipalities have massive debts to water utilities (€780 million) and Eskom (over € 2.7 billion) in August 2022.

Municipalities are expected to prepare integrated development plans (IDPs) as the strategic plan to guide actions and budgets for each 5-year term of the municipal council. This plan should also include the plans of the national and provincial

government departments that affect the area to ensure the alignment of development, as well as responsibilities devolved to municipalities through legislation. Thus, local governments that are the least resourced of all spheres of government bear the burden of implementing many national and provincial government strategies. The physical area of municipalities further complicates the delivery of services. Although Metsimaholo is a relatively small municipality, it still covers a large area, 1717 km^2, which must be serviced, with travel costs and time implications.

12.5 Conclusions

Sasolburg was developed as a lush jewel among the coal mines and the Sasol plant with its dust and pollution. Zamdela – although also intended to be a garden city designed according to neighbourhood design principles by planners – never experienced the same level of investment due to Apartheid policies. Currently, both areas are suffering from infrastructure failures and other service delivery problems in the Metsimaholo municipality.

However, the establishment of Sasolburg was the catalyst for the establishment of the petrochemical industry in the country, which created many jobs and training for many people and tax income for the state. Instead of a more liveable area, healthier environments, and a spread of the benefits of development, the converse appears to be happening in Sasolburg/Zamdela. Instead, it is the disadvantages of the weak governance of Metsimaholo that are being distributed.

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Chapter 13
De-industrialisation, Urban Governance Challenges and Deteriorating Urban Infrastructure in Norton, Zimbabwe: Is the Town Ruralising?

Martin Magidi

Abstract This chapter is based on a medium-sized Zimbabwean town that is under rapid urbanisation and experiencing numerous urban challenges. It explores how a collapsed manufacturing industry and economy compromised local government functions in the town. It documents how the town is in a financial crisis due to revenue challenges, which, in turn, led to the deterioration of critical infrastructure and service delivery at a time when it is recording rapid urban growth. Confronted by these numerous urban challenges, the local authority and residents devised some interventions, most of which, however, fall short of meeting what is largely regarded as 'proper' urban standards. Thus, the town witnessed a rise in predominantly rural practices, which raises the question of whether it is losing its urbanity and experiencing ruralisation. While the findings speak to what some existing literature has framed as the ruralisation of urban spaces, this chapter argues that these urban local government challenges are not a new phenomenon in Global South secondary cities. It introduces a new perspective on the hypothesised ruralisation and argues that while it is largely portrayed as a result of urban governance and development failures, the proliferation of rural-like practices in a city also demonstrates the innovative and resilient character of the African secondary city in the face of many challenges.

Keywords Industrialisation · Norton · Urban-rural linkages · Urban geography

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13.1 Introduction

This chapter is based on Norton – a medium-sized town in Zimbabwe experiencing rapid urbanisation and whose fast-growing population has doubled from about 44,000 to around 88,000 between 2002 and 2022 (Zimstats 2013, 2022). Norton has been growing rapidly at a time when it is experiencing severe economic challenges following prolonged industrial and economic crises, which have been unfolding for over two decades (Magidi 2022). A combination of rapid urbanisation and industrial and economic collapse resulted in the town experiencing numerous challenges, including urban poverty, food insecurity, unemployment, poor provision of basic infrastructure, and service delivery among others (Magidi 2019; World Bank 2014).

The chapter explores how the two phenomena (rapid population growth and a collapsed manufacturing sector) affected local government functions in the town. Declining industrial activity reduced the town's revenue generation base, and the local authority has been operating on a financially constrained budget for over 20 years (Magidi 2022). Poor revenue generation also resulted in a lack of maintenance of basic infrastructure (Norton Town Council 2014). The town's growing population has been increasing pressure and burdening the town's existing resources and infrastructure (Magidi 2023). Norton Town Council, the local government board running the town, has thus been failing to execute most of its primary urban governance functions, which include the provision of water, housing, education, transport, and waste management services and infrastructure as given by the Zimbabwe Urban Councils Act (2001).

The chapter further documents how the numerous urban governance and service delivery challenges forced the town (both the local authority and residents) into improvising a range of interventions as they try to bridge the service delivery and infrastructure deficits. Some of these interventions, which include reliance on open wells as water sources, use of pit latrines, open defecation, open dumping, and urban subsistence farming, have, however, been argued to be predominantly rural practices that fall short of what is basically regarded as urban standards. Some scholars (Chibvongodze 2013; Mugumbate et al. 2013; Tammam 2012 and others) argue that the proliferation of such predominantly rural practices in urban settings equates to 'ruralisation of the urban'. They argue that the absence, shortage, or deterioration of municipal services and infrastructure and the high prevalence of rural practices, such as farming in a city/town, compromise the urbanity of a city/town and lead to its ruralisation. The Zimbabwe Urban Councils Act (2001) clearly states the functions of urban local governments in Zimbabwe. These include the provision and maintenance of municipal services and infrastructure, such as sewerage and drainage, water, schools, housing, land management, waste disposal, and a variety of administrative and welfare services. Arguing from this ruralisation perspective, it is thus justifiable to assert that Norton is undergoing significant ruralisation due to a failing local governance system that struggles to meet its primary functions because of crippling financial and resource constraints. According to Mugumbate et al. (2013), declining quality of life, poor service delivery, inadequate infrastructure,

and unsustainable livelihoods in urban areas are reflective of the ruralisation of a city/town. Zeiderman (2006) and Tammam (2012) argue that the reproduction of rural practices in the city and the overlap between rural and urban practices in an urban set-up reverse the urbanity of the city and lead to the ruralisation of the urban. Chibvongodze (2013) and Bibangambah (1992) argue that subsistence farming as a major urban economic and livelihood activity is a sign of the ruralisation of the urban. In short, the chapter is premised on the following objectives:

- To document how service delivery and infrastructure deterioration in Norton led to the 'ruralisation' of the town.
- To analyse what the ruralisation phenomenon means to the urban governance in Norton and Global South secondary cities at large.

13.2 Understanding 'Ruralisation of the Urban'

According to Mugumbate et al. (2013: 16), ruralisation of the urban refers to the 'decay in the quality of life of people in urban areas to a level that their quality of life will be more akin to rural areas and sometimes inferior to that of their rural counterparts'. They suggest that evidence of ruralisation may include poor social services, inadequate infrastructure, and unsustainable livelihoods in an urban area. Zeiderman (2006: 211) argued that when the 'conventional relationship between the rural and the urban is reversed; the country imposes itself on the city' to result in the ruralisation of the urban. According to Tammam (2012: 6), ruralisation of the city occurs when '...the city reproduces the traditional value system of the rural'. Chibvongodze (2013) and Bibangambah (1992) equated the increasing phenomenon of subsistence farming as a major urban economic and livelihood activity to the ruralisation of the city. This study coined a much-simplified definition of the concept and defines it as the propagation of rural phenomena in terms of economic activities, quality of life, housing, and basic services in an urban setting. To understand the ruralisation of the urban, it is critical to first demonstrate how urban centres differ from rural settlements.

There is no universal definition of what an urban centre (also herein called a town/city) is. However, although definitions differ from one country to another, factors like population size, economic function, and administrative status are largely considered (McGranahan and Satterthwaite 2014). Fox and Goodfellow (2016:2) defined urban areas as 'relatively large, dense, and permanent settlements', which 'serves as centres of population, commerce, and culture' (OECD/European Commission 2020). Urban centres are run by local governments (municipalities), which oversee their day-to-day political and administrative affairs. They have their own laws (municipal by-laws), which govern and regulate the behaviour of the people and institutions within their jurisdiction in many aspects of daily life, which is not always the case with rural settlements (Nakoinz et al. 2020). Strict regulation of many aspects of life and business and the concentration of employment, livelihoods,

and economic activities are thus some of the defining features of urban centres that rural areas generally lack. Urban areas are also considered to have better access to social services and public infrastructure than the countryside (UN-Habitat 2020).

This chapter raises the question of what it means when urban governments experience governance and resource challenges and fail to deliver what they are expected to provide as cities. Although some scholars (Chibvongodze 2013; Mugumbate et al. 2013; Tammam 2012; Zeiderman 2006; Bibangambah 1992) equated this to ruralisation, this chapter offers a more critical interpretation of this phenomenon by framing urban governance challenges from a Southern urbanism theory (Schindler 2017; Pieterse 2014). The Southern urbanism theory argues that Global South (African) urbanisation is unique and follows its own different trends and must not be analysed using the same metrics used to understand Global North cities. Supporting this view, Pieterse (2014) calls for a more grounded understanding of African urbanism that considers the contestations and multiple possibilities that characterise African cities. The following section discusses ruralisation and urban governance in secondary cities.

13.2.1 Ruralisation and Local Governance in Secondary Cities

There is no universally agreed definition of what secondary cities are, and the term has different meanings in different contexts (Song, 2013). Roberts and Hohmann (2014) define secondary cities as second-tier cities that are ranked below primary cities in the hierarchy of cities. According to Roberts (2014), secondary cities play an intermediatory role in bridging local, regional, and city economies. Aucoin and Bello-Schünemann (2016) estimated that secondary cities are home to over half of Africa's urban population. However, despite this essential role, secondary cities generally suffer from a range of governance and development challenges (UN-Habitat 2020). Roberts and Anyumba (2022) argue that in post-independence Africa, they have been neglected in terms of policy and economic development. As a result, they have smaller economies, few manufacturing activities, smaller revenue bases, limited skills and resources, and less capacitated local governments (Smit 2018; Otiso 2005). They therefore have weaker institutional and financial bases that are compounded by high rates of demographic growth (Smit 2018).

Secondary cities in Africa are typically characterised by high inequality, poverty, poor capital investments in public goods, and a lack of pro-poor social programmes (UN-Habitat 2020:173). Friedmann (1986) suggests that secondary cities normally have a core and a semi-periphery structure within their economic geography, which in turn is indicative of high levels of spatial inequality and uneven development. Cities Alliance (2014) noted that secondary cities in sub-Sahara Africa receive low priority and budgets from central governments and therefore struggle to provide services and urban infrastructure – a challenge that is worsened by the fact that their capacity to compete for resources is weaker than that of major cities. These challenges and limitations make the governance of secondary cities very complicated.

This chapter demonstrates how local government challenges stemming from poor economies and revenue bases are resulting in the 'ruralisation of the urban' in a secondary city.

The ruralisation of the urban may present some complications to both urban development and governance. Since the ruralisation of the urban is driven by the poor execution of local government functions, as highlighted earlier, secondary cities are highly likely to experience it more than primary cities. This study gathered that when a city fails to provide the basic services as per its mandate, it becomes difficult for it to fully implement its by-laws. For example, a city that cannot provide its residents with clean water or food is likely to find it difficult to stop them from using unsafe sources like unprotected wells or from practising unregulated farming. These practices do not only result in public health challenges but can also cause environmental hazards (Bisaga et al. 2019). The ruralisation of the urban also manifests in the form of high informality, which is difficult to regulate and has been considered a hindrance to effective revenue collection for local authorities (Mpofu 2021). The high occurrence of informality introduces parallel governance systems (Swapan and Khan 2022), which may conflict with formal conventional governance (see De Satgé and Watson (2018) on conflicting rationalities) and further complicates how cities are governed.

However, on the other hand, as the results will show, this chapter argues that the adoption of rural-like intervention is a way through which developing cities and their residents build resilience in the face of some urban challenges. For example, urban farming has been instrumental in providing food security for the urban poor, who in the absence of that option would not manage to survive in the city (Chibvongodze 2013), while the informal economy can create jobs for the unemployed (Magidi 2022). The following is a summary of the research methodology of this chapter.

13.3 Methodology

13.3.1 Study Location

This chapter is based on a case study of a town called Norton in Zimbabwe. Norton is a medium-sized town that developed as a satellite town of the country's capital, Harare. The town was established as an industrial centre that hosted several big firms in manufacturing, agriculture, and agro-processing (Magidi 2023). Norton experienced high demographic growth over the past few decades as its population increased from 20,000 in 1992 to about 88,000 in 2022 (Potts 2010; Zimstats 2022). However, the town's industry and economy succumbed to the widespread de-industrialisation that affected the country. Ever since, the town has been enduring numerous financial challenges, which have been constraining the town's ability to fulfil its local governance functions, resulting in the hypothetical ruralisation of the town.

13.3.2 Methods

The chapter is the product of a research project that explored how de-industrialisation affected Norton in terms of service delivery, infrastructure, economy, and livelihoods. It employed qualitative ethnographic methods of observation, interviews, and informal conversations to collect data. Fieldwork was carried out over a period of 1 year in Norton and its immediate environs. The researcher conducted in-depth interviews with 32 residents and key informant interviews from organisations, including government departments, local authorities, non-governmental organisations, and grassroots civil society organisations. Observations were made throughout the city: from residential areas, industrial areas, markets, schools, and streets to open spaces. They were meant to identify/observe evidence that suggests ruralisation or pockets where some predominantly rural phenomena were emerging or taking over from what are generally regarded as urban practices. The interviews were meant to understand how the town has changed over the years from the residents' perspective. Participants were selected using purposive sampling (snowballing), and only residents who had stayed for at least 10 years in the town qualified. These were deemed to have resided in the town long enough to witness significant changes. Data collected through all methods were compared and corroborated to establish similarities and themes, which are presented and discussed next.

13.4 Results

The study found several cases of local governance and economic failure in Norton that point to ruralisation. Ruralisation manifested in many ways: subsistence-farming-based livelihoods, collecting water from unprotected sources, and the use of firewood for energy, pit toilets, and sub-standard education facilities, among others. As shall be demonstrated later, ruralisation in Norton is a result of urban governance failures as the financially constrained local authority failed to execute most of its functions.

13.4.1 Farming as a Major Urban Livelihood

The study discovered that farming has become a major livelihood among many households in Norton. Following the industrial and economic collapse, many residents lost their jobs and were left without a secure source of livelihood and some households resorted to urban farming to survive. Although urban farming was not permissible by the law, Norton Town Council revealed that it relaxed its by-laws and allowed residents to farm because it was pointless to have an orderly town when people are starving. The residents cultivated crops, such as maize and vegetables, in

open spaces, undeveloped commercial/industrial and residential properties, as well as abandoned/closed industrial premises. A respondent from Katanga township noted how, together with his friends and relatives, they were reaping good maize harvests from cultivating undeveloped residential plots in the Knowe, Nharira, and Trafalgar suburbs. These suburbs are low-density areas where residential plots can be up to 3000m^2 big, which makes them sizable enough to allow significant farming. He said: 'I harvest 3 to 4 times more than what I need for my annual consumption, so I sell the surplus and make income for other family needs. I also send some to my rural family since they normally have poor harvests there due to poor rains.' Field observations found numerous maize and vegetable fields throughout the town and many residents taking part in farming activities at different stages of farming throughout the year, from land tilling to harvesting.

The study also noted the growth of agricultural inputs, stores in shopping centres, and informal markets in residential areas of the town. These were selling customised seed and fertiliser packs packaged in 1 kg, 2 kg, and 5 kg to cater to the needs of different customers according to the size of their land. A fertiliser trader at the Ngoni market said: 'fertiliser is a good business here (in Norton). Many families are surviving on farming, and they come here to buy farming inputs in varying quantities, so I repack mine in 1, 2, 3, and 5 kg packs.' The study also found that while some vegetable traders were buying their produce from the Mbare market in Harare, some were selling their own vegetables that they planted at home. Some homeowners in low-density suburbs (Knowe, Nharira, Twin Lakes, and Trafalgar) with enough land were also growing and supplying (wholesaling) vegetables to vendors, who would then sell to consumers.

The livelihood situation in Norton contrasts with what is expected in a normal urban setting. As the research discovered, many households in the town relied on urban and peri-urban agriculture to sustain their lives in the town. The prevalence of casual farm work as a form of urban employment also defies 'proper' urban economics. One of the defining characteristics of functional urban areas is that they have fewer agricultural activities as their economies are more based on services, commercial activity, and manufacturing/industry. Instead, towns/cities are considered consumer sites for agricultural products produced in rural areas. As Nakoinz et al. (2020) noted, towns/cities are different from rural areas because they have a multiplicity of non-farm enterprises. However, subsistence farming as a major economic activity in an urban set-up raises questions as to whether the town is still an urban centre or ruralising. The observation that some of the food grown in the town was used to feed families in rural areas somehow reserved the role of the urban centre as a consumption site for agricultural products produced in the countryside (UN-Habitat 2020). Moreover, while in a 'proper' town/city, most jobs should be in the service and manufacturing or industrial sectors; in Norton, agriculture and farming-related activities tend to be the main sources of employment.

The observation that residents are using collapsed/closed industrial premises for farming may suggest that the town could be regressing from a once industrial centre to a farming community, which Magidi (2019) proposed to call 'reverse modernity'. Urban development, according to the modernisation theory (Rostow 1971) entails a

transition from agrarian to industrial societies. Using this perspective, turning industrial premises and residential properties into farming plots may therefore suggest a reverse of the urbanisation process. The high occurrence of farming and agriculture-based employment is seen as some of the factors that compromise the urbanity of an urban area and thus is equated to the ruralisation of the urban (Chibvongodze 2013; Mugumbate et al. 2013; Bibangambah 1992). However, urban farming presents some urban governance challenges. For example, some urban farmers were cultivating in prohibited areas such as wetlands due to a shortage of land, and this was believed to be causing flooding in areas like Johannesburg, Marshlands, and Ngoni suburbs. It was also difficult for the local authority to create a balance between farming and environmental conservation. Whether to prioritise saving wetlands when residents were starving seemed a difficult decision for the local government to make.

13.4.2 Firewood and Charcoal as Major Sources of Energy

The study found that because of excessive power cuts compounded by the rising cost of electricity, many Norton residents have resorted to using alternative energy sources which, however, are predominantly rural. The Zimbabwean power shortage crisis has been unfolding for more than two decades and is well documented. As the country endured a crippling economic and industrial collapse, the Zimbabwe Electricity Supply Authority (ZESA) – the national power utility – is among the most affected. Power shortages are driven by outdated infrastructure, lack of maintenance, and brain drain as skilled personnel leave for other countries (ZimLive 2022; Sibanda 2022). ZESA's power generation capacity decreased to 984 MW per day with a daily demand of at least 2000 MW (Mawonde 2015). The study discovered that Norton is among the most impacted by prolonged power cuts. With a collapsed manufacturing industry, and being a secondary city, the town officials noted that the town was not prioritised in electricity provision during periods of power outages. Residents noted that they experienced continuous daily power cuts for up to 15–18 h, forcing them to find viable substitutes. Other than areas connected to the grid that suffered from load shedding, Norton also has some off-the-grid suburbs that the power utility was failing to service/connect.

The study found that some households had resorted to using firewood and charcoal for cooking purposes. A Katanga township-based respondent highlighted the use of firewood and charcoal for cooking: 'We have been using firewood for a long time. Almost everyone around here is using firewood or charcoal for cooking since electricity is only switched on late at night when people are already asleep.' Another resident added that some businesses, 'especially those in the catering sector have turned to firewood and charcoal since electricity is switched off around 5 AM and restored after 10 PM'. Field observations also confirmed that firewood was a big business in the town. Firewood and charcoal traders were also seen on the markets and along the streets.

The use of firewood and charcoal as sources of energy is considered a rural phenomenon. Under 'normal' urban setups, residents rely on electricity and gas for their energy needs. Urbanisation is believed to promote electricity infrastructure and to meet the growing industrial and domestic demand for more efficient and reliable power in towns/cities. The increasing accumulation of electricity-powered gadgets such as cooking appliances, entertainment, educational gadgets, and technology suggests that typical urban centres rely on electrical energy more than any other source of power. The study notes that the situation in Norton is rather different since firewood has become the main source of domestic energy, which is regarded as a rural phenomenon that can be argued to be contributing to the ruralisation of the town. However, the use of firewood has not been without its challenges, which include excessive deforestation on the town's peripheries. Again, the local government had a difficult decision to make on what to put first, vegetation or the residents who were compensating for the shortage of electricity in the town. The use of firewood also pollutes the air, and a blanket of smoke could be seen in residential areas during evening cooking times, but the local council seemed to lack the moral authority to prohibit residents from using firewood at a time when they were experiencing acute power shortages.

13.4.3 Boreholes and Unprotected Wells as Major Sources of Water

The study discovered that some suburbs in Norton had no piped water. As the economic crisis continued, the town was in a financial crisis and was not able to meet the growing demand for water and sanitation services. A town official confirmed that the town used to collect most of its revenue by collecting rates and taxes from industrial and commercial entities, but 'the collapse and closure of most companies left us with little revenue', leaving the town to run on a strained budget. Another revenue stream was supposed to be residential and service rates. However, since most homeowners struggled to feed their families, they tended to default on their payments. The local authority also lost a lot of money that the ratepayers owed when the government cancelled all outstanding residential rates towards the 2013 general elections. A town official said: 'We lost millions of dollars due to that declaration and this compounded our already existing challenges.' The financial crisis now has an impact on local governance functions in service delivery. The water supply was worsened by the fact that Norton bought its water from Harare.

As a secondary city, Norton lacked the financial resources to build its own water treatment plant. Suburbs like Johannesburg, Marshlands, Kingsdale, and Maridale had gone for years without water. One resident said: 'I have been staying in Johannesburg for over 10 years and I haven't seen water coming out of the tap even once.' She noted that most residents have dug water wells at their homes. However, the water was not always safe for consumption, so they also relied on communal boreholes drilled across the town. Observations also noted that some residents

queued at several wells in the city while others retrieved water from open wells dug in nearby wetlands using buckets, wheelbarrows, and pushcarts.

In many cities, municipalities are mandated to produce and distribute piped/tapped water to residents. Ideally, communal boreholes and unprotected wells are not classified as part of the urban water infrastructure. They are seen as rural water sources. As Norton struggles to provide clean water to its residents, the presence of boreholes and unprotected wells as water sources may be seen as a sign of ruralising. Unprotected wells and boreholes can easily be contaminated, especially in areas with high use of pit latrines and that have the potential to cause outbreaks of waterborne diseases, yet it was again difficult for the council to prohibit people from using these water sources because there are no alternatives. The full enforcement of governance laws and regulations thus proved difficult when the options available for residents were limited due to the incapacitation of the same town council.

13.4.4 Pit Latrines and Open Defecation

Following the financial crises that Norton has been experiencing and continues to experience, the provision of sanitation services in the town has deteriorated. The study found that new residential suburbs (Johannesburg, Kingsdale, Damofalls, and Marshlands) lacked a functional sewer system and relied on pit toilets. A Marshlands respondent said: 'In Marshlands we don't have a sewer system. Almost every house has a pit toilet, and just a few have septic tanks. This also applies to Johannesburg and Maridale where I also stayed before.' Linked to poor sanitation was the observation that waste was hardly collected in most residential areas. A town official confirmed that the town had only one functional garbage truck, which was meant to serve the whole town. Residents resorted to open dumping along roads, in open spaces, and at marketplaces. The researcher witnessed many such dumpsites during field observations. A respondent from Katanga said: 'We can go for up to two months without seeing the garbage truck in our neighborhood.' Observations across the town confirmed the presence of pit toilets and evidence of open defecation in bushes, maize fields along the roadside, and vacant spaces.

In 'proper' urban settings, the provision of sanitation infrastructure and services to facilitate the safe disposal of human waste, and solid waste management, is the function of the local government. Jones et al. (2014) noted that in cities, municipalities are mandated to ensure the safe disposal and treatment of all forms of waste. Although pit latrines are not a new phenomenon in cities/towns, high-use pit toilets and the open defecation practice, as is the case in Norton, are largely considered anti-urban and can be argued to be compromising the urbanity of the town. Using the definition of 'ruralisation of the urban' given above, one can argue that Norton is undergoing ruralisation. The use of pit toilets in Norton yet again presents a potential public health risk, but the town council could not act decisively against residents since the lack of a proper sewer system was its fault.

13.4.5 Dilapidated Infrastructure

Furthermore, the study found that the public infrastructure in Norton had deteriorated and lacked maintenance. Respondents noted that roads like Koshen Drive, the main road that connects Katanga with Johannesburg, Maridale, and Marshlands suburbs, used to be tarred but had deteriorated into a dirt road. A respondent who had been a resident of Norton since the road was constructed around 2000 said: 'The road was a good road, tarred but now resembles a rural road due to lack of maintenance.' After years of patching potholes using plain gravel, the road eventually turned into a dust road, and this was typical of many other roads across the town. Observations also confirmed that many roads in newer residential areas – Maridale, Johannesburg, Marshlands, Damofalls, Kingsdale – and high-income suburbs like Knowe and Trafalgar were never tarred and resembled rural roads.

In addition to roads, the study discovered the presence of makeshift school buildings in established and new schools. Some learners in both public schools and private tutoring facilities studied in substandard buildings, temporary shades, and wooden structures. A teacher at a local primary suggested that Norton's school population was growing rapidly, yet no new schools were being built. Existing schools thus struggled to accommodate all learners, and some therefore resorted to setting up shades and temporary structures to accommodate more learners and observations in schools confirmed this development. Other than substandard classrooms, schools also faced a shortage of teachers and critical learning equipment like desks, and some studied while sitting on the floor. The shortage of school places also saw some learners walking long distances to attend school in surrounding farms.

In addition to substandard school buildings, the study also noted that some residents of new residential areas were constructing substandard houses. Observations noticed some houses that were constructed using farm bricks, wood, and plastic because they could not afford the proper/recommended building material. Some houses, especially in the early suburbs like Katanga and Ngoni, were old and dilapidated due to the lack of maintenance and did not really portray 'proper' urbanity. Although the use of substandard construction materials is finding its way into cities through informal settlements, it is against town construction by-laws and is largely a rural phenomenon. Although some are improving the quality of their rural housing, construction in rural areas remains unregulated in many ways, and there is a high prevalence of the use of unconventional building materials and substandard construction.

As dilapidated infrastructure becomes prevalent in Norton, it can be argued that the town is losing its urbanity and gradually ruralising. Poor school infrastructure, such as makeshift school structures and a shortage of teachers, is often associated with remote rural schools. Du Plessis and Mestry (2019) noted that in many African countries, rural public schools lack adequate educational infrastructure and offer poor-quality education. Such dire schools and educational conditions in Norton could suggest that the town is rapidly losing its urbanity and moving towards ruralisation.

13.5 Discussion

The results of the study show that Norton is experiencing serious urban governance challenges that suggest elements of urban decline and ruralisation of the town. Several practices that can be argued to be predominantly rural were noted, and it is fair to argue that they compromise the urbanity of the town. Poor service delivery in the areas of water, sanitation, housing, energy, and maintenance of public infrastructure resulted in the deterioration of the town. Interventions adopted by some residents, like the use of firewood for energy, pit latrines, communal boreholes, and open water; practices like open defecation; and farming as major livelihood and economic activities suggested more of rural than urban standards. The urban challenges and the consequent rural-like interventions that Norton faced are a testimony of the urban governance complications that secondary cities (and towns) face. They present governance failures in secondary cities that emanate from financial and resource constraints.

As highlighted earlier, secondary cities have weak institutional and financial bases and lack the capacity to compete with larger cities in fundraising (Smit 2018). Projects such as the construction and maintenance of roads, waste, water, electricity, and sewer infrastructure are capital intensive, and secondary city governments normally do not afford them. An example from this study is how Norton relies on Harare for its water supplies. High unemployment resulting in high informality and reliance on urban subsistence for survival confirms the observation that secondary cities have small economies and manufacturing sectors that can create jobs (UN-Habitat 2020; Otiso 2005). The absence of these crucial services and infrastructure is what fuels the ruralisation of secondary cities in Africa. The high prevalence of predominantly rural practices also confirms Freidmann's (1986) suggestion that secondary cities have a core and semi-periphery structure. Semi-periphery represents the areas/aspects most affected by poor service delivery and infrastructure where ruralisation is creeping in.

The challenge of ruralisation in secondary cities is accompanied by other problems that further constrain local governments. As results highlight, Norton Town Council relaxed some of its by-laws to allow residents to engage in farming and other predominantly rural practices to compensate for the missing municipal services and infrastructure. It was becoming increasingly difficult to fully implement its by-laws to regulate residents who improvise because of the town council's failures. Moreover, the town did not have adequate personnel and resources to monitor all activities in areas under its jurisdiction, which further complicates how it enforces its by-laws. The high proliferation of rural practices paves way for informal governance systems that may clash with the official governance logic and, hence, the notion of conflicting rationalities in governing African cities (De Satgé and Watson 2018).

However, while modernist theorists fronted by Rostow (1971) hypothesise 'ruralisation' as anti-urban and counterproductive, this chapter adds a new and different perspective about the phenomenon. It argues that the adoption of rural-like

interventions demonstrates the resilient and innovative character of African secondary cities in the face of many challenges. It demonstrates the ability of secondary cities (and their residents) to adapt and curve cheaper and feasible alternatives that suit their realities and resources for them to survive in an environment full of challenges. We have already learned that secondary cities in Africa endure numerous challenges. Faced with such challenges as lack of jobs, piped water, electricity, and sanitation services among others, the city and the residents must innovate and recreate the missing services for themselves to continue to sustain their urban lives. Adopting predominantly alternative rural-like interventions in the face of lack of basic urban services and infrastructure and the urban governance complications that they bring resonates with Pieterse's characterisation of African cities as places of 'multiple possibilities, rhizomatic power, contestation, resignification…' (Pieterse 2014:313).

The chapter further argues that the high prevalence of predominantly rural interventions in Norton should be understood in the context of the role that secondary cities play in bridging the rural areas and major cities (Tacoli 2017). For example, Norton plays an intermediatory role between Harare, rural towns like Murombedzi and Mubaira, and the rest of the countryside in the Mashonaland West province. This brings the observation that African rural and urban areas are part of a continuum in which a variety of activities occur, not in isolation but in contact with each other (Nakoinz et al. 2020). With the direct links that African secondary cities have with rural areas, the presence of rural-like practices within their jurisdictions should be expected.

In conclusion, the chapter re-emphasises that ruralisation in African secondary cities needs to be seen through two different lenses. The first one is that it is a result of urban governance and development failures. Here, deteriorating service delivery and infrastructure are regarded as a failure by urban governments to fulfil their governance functions. The second perspective is that ruralisation ought to be understood in the context of the fact that secondary cities are already constrained and the struggle to mobilise the financial resources needed to run their ever-growing populations. In this light, adopting rural-like interventions should be seen as innovation and resilience – a way of providing cheaper alternatives for residents of a city that faces severe shortages. Arguing from this perspective, the chapter concludes that Norton town is not ruralising, but is simply being innovative as it builds resilience against its many challenges, shaping and charting its own urbanisation path in doing so.

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Chapter 14
Genius Loci: Unlocking the Particularities and Potentialities of Beitbridge in Zimbabwe to Enhance Public Place Quality

Nicholas Muleya

Abstract Founded on place making and, in particular, the 'sense of place', g*enius loci* means the 'spirit of a place' or the 'DNA' of a place. The term is synonymous with the distinctiveness, particularity, special character, or unique identity of a place. Everything and every place have their 'genius' established over time by collecting natural and man-made elements. Understanding places' genius loci allows built-environment practitioners to identify the particularities and potentialities of a place: an important starting point towards improving the quality of public places based on context. Urban public space, the outdoor built environment, can be improved by promoting distinctiveness, which is an important element for tourism, place marketing, and place branding. However, this promising genius loci approach to public place quality is latent and has not been fully studied and used in Zimbabwe. This is happening at a time when public places are deteriorating and lacking attention in urban settlements in Zimbabwe. While raising a torch on the natural and man-made aspects in both rural and urban, this study seeks to unlock the Beitbridge-ness of Beitbridge to enhance urban Beitbridge public space quality. The study follows a qualitative design with a phenomenological strategy of enquiry, which is a window to study the Beitbridge 'life world' and taken for granted the elements of 'genius loci'. Data were collected through interviews, documentary analysis, and systematic observation of selected public places. The interview respondents, namely Beitbridge development practitioners (municipality senior officers, Rural District Council senior officers, and Rural District Development Committee members) and Beitbridge senior citizens, were selected by purposive sampling. Data were analysed through themes and images. The findings of this study will stand as a record of Beitbridge 'genius loci' and subsequently give direction in the planning, design, and management of public places. The study has generated a framework for 'genius loci-public place' that will guide the Beitbridge public space system, micro- and macro-level urban planning.

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14.1 Introduction

According to Turok (2009: 1), 'in the face of growing competition pressures, cities in Britain, America and elsewhere have been exploring new ways of promoting their distinctiveness in order to increase local prosperity'. Distinctiveness or differentiation is one way places can develop uniquely, thus improving people's standard of living. Understanding the 'genius loci' of a place is an important place-making approach that can potentially be used to inject prosperity into cities. Place making is essentially recognising the natural or cultural uniqueness of a place and enhancing this uniqueness to achieve a sense of place (CSIR Building and Construction Technology 2000: 11). According to Shrivastaya and Kennedy (2013: 84: quoted in Sheridan 2018: 64), a 'place' can be defined as 'a built or natural landscape, possessing a unique geographical location, invested with meaning'. The meaning or identity of a place is at the centre of the place, and according to Sheridan (2018: 63), 'without shared meaning, a place is just a space'. Although the characteristics of a place continue to change over time, there are specific features that remain stable, and some of these are 'landscape specific features that could be transmitted to the future generation'. Those features represent the identity of a community and should be seen as *genius loci* (Ciobota et al. 2015: 52). Therefore, genius loci refer to the particularity, meaning, or identity of a place. It is synonymous with a sense of place.

The genius loci approach is a place-based approach that is grounded on the understanding that development is never 'context free', location is a determinant factor and each place is different (Sheridan 2018: 63, 64, 73), and '[r]nationality is always situational' (Cleggy and Ross-Smith 2003, 90 quoted in Sheridan 2018). The place-based approach can lead to innovation, sustainability, and inclusivity and offers a window to incorporate indigenous knowledge systems. Sense of place is a 'prerequisite for sustainability' (Sheridan 2018: 62, 63, 73).

The concept of 'genius loci' is directly related to the urban design principle, character, which is an important determinant of the quality of public spaces. The term character has to do with identity and distinctiveness. A place's distinctive character must be reflected in the way it is laid out and landscaped, and it should respond to and reinforce locally distinctive patterns of development, landscape, and culture. According to the Ministry of Environment in New Zealand (2005), high-quality public space should reflect and enhance the distinctive character, heritage, and identity of a given urban environment.

The chapter begins by discussing the significance and objectives of the study. Literature review relating to place making, the concept of genius loci, and locating or the discovery of genius loci are the subjects of the next section. The research approach, the presentation and discussion of findings, the future of the Beitbridge public space system, the public-space genius loci framework, and the conclusion constitute the last parts of the chapter.

14.2 Significance and Objectives of the Study

Every place possesses a genius locus, and the genius loci is not obvious, but it needs to be systematically discovered or located. When identified, the genius loci of a particular place must be enhanced since it is the foundation of the prosperity of a place. This argument is in line with the assertion of Siregar et al. (2018: 2) that '[e]ach place or region has a local spirit or intelligence that makes the place come alive… it distinguishes one place from another'. Such a spirit or intelligence is a genius locus.

Considering the realisation that 'many cities appear to be pursuing the same policy formula…' in their development approaches, Turok (2009: 1, 3, 4) challenges cities to:

> develop more original and distinctive advantages…There is need to develop more specialised activities and sources of differential advantage that other cities cannot produce…developing attributes that other cities cannot easily reproduce in order to increase living standards and employment. Thinking about specialized activities and distinctive niches encourages city authorities to reflect on their indigenous strengths and relationships with other places.

Once the genius loci of a place are identified and enhanced for the benefit of society, it must also be protected. According to Ciobota et al. (2015: 15), "through the 'understanding of *genius loci*', the community can modernise without losing its identity". This is especially important considering globalisation, the modernist approach, and cyberspace, which has led to the privatisation and standardisation of public places (Muleya and Munyai 2021). This is directly related to Sheridan's (2018: 63) dilemma of 'global versus genius loci'. It is for this reason that the genius loci approaches began with the Greek and later the English-speaking world (Seamon 2022: 2).

However, the concept of genius loci is least understood and applied in Africa. Its application to public space quality is rare. Muleya and Dube (2019) have noted that there is a literature gap on the quality of the built environment and the quality of public space in Zimbabwe. This is an unfavourable situation given that planning in the Global South has also suffered from inappropriate borrowing of ideas from the North, ideas that are imported without a careful understanding of the context and without revision of the ideas to suit the local context (UN-Habitat 2016: 138; Watson 2009:151). The imitation of designs by built environment professionals continues to lead to placelessness (Watson 2015). In addition, urbanisation, it is predicted, will continue to take place at unprecedented rates worldwide, but the astronomical pace of urbanisation will continue to be experienced in the Global South, particularly in Africa (Jiboye 2011: 123; Watson 2009:151). This way, the standardisation of cities is likely to persist. However, Turok (2009: 3) warned that '[i]n general, most effective strategies are likely to be those that build upon indigenous capabilities and relationships rather than imported ideas'. Therefore, an understanding of the city's genius loci is an important ingredient for city branding, city marketing, and image building. On the other hand, the literature shows that the state of main public parks and streets in Harare, Gweru, and Bulawayo is deplorable. Small settlements, like Beitbridge, have no public parks (Muleya 2020: 69, 225).

Therefore, the importance of the study is based on the need to identify and protect the genius loci of Beitbridge to improve its public place quality. This is urgent for all African urban settlements considering the minimal understanding and application of the concept in the continent where placelessness has been observed resulting from inappropriate borrowing of public space planning, design, and management. This scenario has led to the production of sterile and faceless public spaces. The study justification is based on Seamon's (2022: 5) assertion:

> There is a growing design, planning, and policy literature that asks if sense of place can be fabricated intentionally……Obviously, a powerful sense of place cannot be manufactured directly, but architects, landscape architects, urban designers, and community planners can all contribute to shaping and enhancing designs, plans, and policies through empathetic efforts that respect a specific place and carefully think through and envision ways whereby that place might be invigorated, including its genius loci and sense of place.

The need to pay attention to the invigoration of public space is based on the generally accepted assumption that place making and remaking is a continuous activity (Lombard 2014: 40; Strydom 2014: 14) that allows for space production, reproductions, and improvements. In city building, 'there is no final result; it is a continuous succession of phases' (Lynch 1960: 2). According to the *Project for Public Spaces* (2012: 12), one cannot initially do everything right in the design of cities, but through researching the spaces, improvements may be made over many years. The space user must be at the forefront in the reshaping of the public space if quality is to be guaranteed.

Considering the foregoing, the study exposes the history of Beitbridge, the natural and man-made resources of the city, culture and heritage, the distinctive image of cities or place qualities, the perception of the residents, and the value they attach to Beitbridge. The study goes on to examine the way the particularities and potentialities of Beitbridge can be utilised to improve the public space system. The specific objectives of the study are as follows:

1. To locate and describe the *genius loci* of Beitbridge: the Beitbridge-ness of Beitbridge.
2. To determine which and how genius *loci* elements can be used in the enhancement of public space quality.
3. To generate a *genius loci*-public space quality framework that will guide the protection and enhancement of the Beitbridge *genius loci* towards public space quality and local and national development.

Beitbridge is an important settlement in Zimbabwe that attracts many people, activities, and changes in the physical environment. Therefore, it is urgent to identify and protect the genius loci of Beitbridge before it is totally lost.

14.3 Literature Review

This section reviews the literature on genius loci meaning and history, public space quality meaning and history, and locating the genius loci of a place.

14.3.1 Genius Loci: Meaning and History

Seamon (2022: 1, 7) notes that *genius loci* and 'sense of place' are closely related and 'can be defined as the specific character and expressive energy of a particular environment or locale'. In simple terms, Seamon (2022: 1) interpreted the sense of place for Tokyo as the Tokyo-ness of Tokyo. Founded on place making, g*enius loci* mean the 'spirit of a place' (Auret 2015: 107) or 'DNA' of a place (Coca-Stefaniak 2013: 4; Gillespies 2007: 37) or the soul of a place (Qian 2012: 7). It can mean a 'location' distinctive atmosphere or a protective spirit of a place (Voglar and Vitorri 2006: 8). Everything and every place have their 'genius', their particularity, a special character, or a unique identity established over time through the gathering of natural and man-made elements (Shirazi 2008). Preserving or respecting or protecting 'genius loci' does not mean reproducing old places as they are, but it involves interpreting the 'constant properties' of such places in ever new ways (Shirazi 2008: 3). *Genius loci* can evoke both positive and negative qualities, for example 'sense of serenity, pleasure, pride and vitality' or 'unsettledness, discomfort, fear, sterility' (Seamon 2022: 1). Therefore, the positive qualities of a place need to be identified and enhanced, while the negative qualities may be suppressed.

The concept of genius loci originated in the 1960s to 1970s as a move by built environment professionals from functionalism to humanism. There was a need to study the experience in the urban environment and space based on psychology. The overall goal was the need for a better quality of life and the need for spiritual satisfaction. The genius loci theory pays attention to 'human activity and experience through inspecting people's most basic life world' (Qian 2012:19). The approach is directly related to the phenomenological conceptual tradition. Genius loci began with the Greeks and Romans and spread to the English-speaking world in the eighteenth to the nineteenth centuries 'as urbanisation and industrialisation supplanted rural ways of life' (Seamon 2022: 2). It is disturbing to note that this important approach is not popular in Africa and Zimbabwe in particular, despite its important role as a window towards public space quality.

14.3.2 Public Place Quality: Meaning and History

Public place quality can best be defined by first conceptualising the meaning of 'place', 'public place', and 'quality' separately. Space and place are 'basic components of the lived world', and the two terms overlap and require each other for definition (Tuan 1977), but the terms command different meanings. When inhabited, lived, and experienced by people (humanised), a 'space' becomes a 'place' (Creswell 2009; Perdikogianni 2007; Rowleys and Bernard 2013). Meaning is at the heart of what a place is all about, and the process through which a space becomes a place is known as place making (Strydom 2014). Creswell (2009: 1) affirmed the following:

> While the word 'place' has been used as long as geography has been written, it is only since the 1970s that it has been conceptualised as a particular location that has acquired a set of meanings and attachments. Place is a meaningful site that combines location, locale and sense of place.

The sense of place 'cannot be achieved through standardised planning and design' but through organic or spontaneous planning (CSIR Building and Construction Technology (2000). This is in line with Voglar and Vitorri's (2006) assertion that 'there is more to a place than its physical dimensions'. Similarly, Qian (2012: 20) said: 'place can be understood as made of two parts: space and character'. Places can be private and public.

Public place refers to the outdoor environment that is accessible and experienced by everyone. Good examples are streets, public parks, squares, forestlands, and any land lying between private lands (Carmona et al. 2010; UN-Habitat 2016). The definition also encompasses the physical elements that make up the spaces and the 'building edges that form physical boundaries of the spaces' (Mehta 2014: 53). The facades of buildings are therefore an important component of public places. They not only separate the private space from the public space but also contribute to human experience. Public places are 'the lifeblood of the city' (Carmona et al. 2010: 137) that gives a city its image, sense of place, and character (Gillespies 2007; Harvey 2009). Public places can be used for place branding, place marketing, and image building (Harvey 2009). Through public spaces, the distinctiveness of a city can be exhibited. The public place is the most important aspect of the built environment that gives a city its image. The New Masterplanning Limited (2008: 11) is in chorus with this statement when it revealed:

> Often the public realm is the first and lasting impression a city centre makes on a visitor. From the point of arrival to the experience as a pedestrian exploring the town, the public realm plays a significant role in the statement a town makes and its profile as a destination.

Therefore, the genius loci of a place can therefore be imprinted through the manipulation of public places. This can only be done if the genius loci or 'character' of a place is established first.

On the other hand, quality refers to the 'degree of excellence by which we satisfy the needs of customers' (Malek et al. 2010: 6). From the public space perspective, quality 'must be centred on the interaction of people and places' and public space quality must depend on human experiences and aspirations (Willemse and Donaldson 2015: 226). Public place quality can therefore be characterised and measured according to its ability to satisfy user needs and desires (Mehta 2006). As previously highlighted, in the significance of the study, one important design principle – character, which is an important public place quality element – has been undercut due to the standardisation emanating from the modernist movement in planning and design, globalisation, and cyberspace.

The Modern Movement in planning and design has produced identical and standardised cities worldwide. Such cities 'lost their identity, a quality that had been possessed by the cities of the past' (Poerbo 2001: 25). People have thus lost place

attachment to their cities since there is nothing to identify themselves with the cities. Perdikogianni (2007) defined place attachment as the effective bonds observed to have been developed between people and places. According to Trancik (1986) and Walters and Brown (2004) have accused modernist planning and architecture of this loss of attachment that has resulted in the creation of stand-alone, non-vernacular buildings that do not clearly define public space, lack human scale and 'explicitly reject the importance of street space, urban squares and gardens, and other important outdoor spaces'. In addition, the fast growth of cities over the past century, which continues today, and the application of the 'heavily attacked modern formula, quickly resulted in sterile and faceless neighbourhoods' (Voglar and Vitorri 2006: 7). The modernist approach to the planning and designing of urban space is blamed for being bureaucratic, technocratic, and scientific, while human experience is less regarded (Strydom 2014).

The above shows that the 'genius loci', which is an important ingredient that connects humanity and public spaces, has been lost in the planning, design, and management of contemporary cities. The 1960s, when the concept of genius loci began, was the same time that there was an outcry about the declining quality of the built environment and, in particular, public place quality (Koray 1999). This is not a coincidence because genius loci evolved as one of the tools to deal with the then-emerging standardised cities. Clearly, meanings attached by people to their spaces must be interpreted and understood by designers so that they are incorporated into the place-making process. An understanding of the real experiences of people and space aspirations not only helps understand the uniqueness of the place but also informs designers about the needs and preferences of particular groups of people. This understanding will help built environment professionals enhance (without eroding) the spirit of a place. Through this approach, places that are sustainable, usable, valued, and recognisable by users may be created.

14.3.3 Locating the Genius Loci of a Place: The Components and the Process

The components to look at when locating the genius loci of a place are place-based aspects that can be 'societal, ecological, political, and economic forces that intersect these places' (Sheridan 2018: 63). According to Qian (2012), the aspects can be local climate, history, and custom, which aspects contribute to finding meaning for each place. The genius loci aspects can be natural, for example rocks, vegetation, and water, or artificial, for example custom (Qian 2012). In a study to locate the genius loci of the Medan City Centre District, one of the main cities in Indonesia, Siregar et al. (2018) paid attention to culture, economic background, and history. The genius loci of Medan City were found to be the diversity of cultures formed by the history of economic growth that occurred in the region. Cultural diversity was associated with a tobacco plantation and associated industry (Siregar et al. 2018).

Some aspects of distinctiveness to consider include the presence of specialised industries, skill sets and occupation, built environment, image and identity, natural environment, sociocultural structures, government arrangements, and institutional events (Turok 2009). In the process of identifying and reinforcing genius loci, Turok (2009: 4) warns:

> There is a danger that the pursuit of distinctiveness becomes a recipe with similar ingredients everywhere – new industries, high tech occupation, signature buildings, and consumer identities.

One of the popular approaches to locating genius loci is the Noberg Schultz search process of finding genius loci of a place (Siregar et al. 2018: 2).

14.4 Study Area

Beitbridge was established in 1929, when Alfred Beitbridge, where its name was derived, was completed. It is the southern gateway to the country and is one of the fastest-growing urban settlements in Zimbabwe. In line with the unprecedented growth rate, Beitbridge graduated to municipal status in less than 10 years after achieving town status. This status is a clear signal of growth. Demographically, the Municipality is the most populous urban settlement in the Matabeleland South Province. As of the 2012 Census Report, more than half of the urban population in Matabeleland South (80,162) live in Beitbridge (42,137). The Municipality was home to 42,137 inhabitants in 2012 – a population that was more than double that of the provincial capital, Gwanda (20,227). The urban population of Beitbridge has been doubling every 10 years for the past two decades (11,000 in 1992; 22,000 in 2002; and 42,137 in 2012). The main pooling factor is the town's proximity to the largest economy in sub-Sahara Africa, South Africa. At a growth rate of 5.6%, it was estimated to be about 60,000 in 2017 and estimated at 80,000 in 2022 (Zimbabwe National Statistics Agency 2012). However, according to the 2022 Census Report, the population of Beitbridge urban was 58,574 people (Zimbabwe National Statistics Agency 2022).

The Municipality's proximity to South Africa and border status among other factors contributes to the fast pace of urban development. South Africa has the largest economy in Africa and gives the platform to access goods for distribution throughout Africa. The Municipality was established primarily as a port of entry/exit to/from the Republic of South Africa. It is the main urban centre in the southern part of Matabeleland South. In addition to the above population figures, the Beitbridge border port is the busiest port of entry and exit in the interior Southern African region, currently known as Southern African Development Countries (SADC), stretching as far as the Democratic Republic of Congo (DRC), formerly Zaire, in the North-West; Zambia to the North; and Malawi and Tanzania to the North-East.

The fast pace of physical changes in the built environment and, in particular, public space; the large number of residents who come and settle in Beitbridge; the daily interaction of the Beitbridge community with people from other parts of the country and other countries; and the regular movement to South Africa and back by Zimbabweans are a threat to the 'genius loci' of Beitbridge. Therefore, it is urgent to identify and protect the genius loci of Beitbridge before it is totally lost.

14.5 Research Approach

The study follows an explorative qualitative design with a phenomenological enquiry strategy, which is a window to study the 'life world' of Beitbridge and taken for granted elements of the 'genius' loci. The phenomenological strategy is, according to Seamon (2022), one of the current (early 2020s) approaches to sense of place studies. The other two conceptual traditions are 'empirist-analytic research' and 'social constructionist research'. Phenomenology is a powerful theory of genius loci that can be used to identify and keep the spirit of a place (Qian 2012).

Data were collected through a local archive study (documentary analysis of layout and building plans where necessary), site analysis, and direct observation and interviews with municipal officials, local experts, traditional leadership, and senior citizens. According to the interview guide, the respondents were expected to list genius loci elements in Beitbridge and, where applicable, demonstrate how the same can be represented in the public space. They were also asked to identify the most important genius loci of Beitbridge while giving reasons for their answer. The important public spaces selected based on the interview responses are as follows:

1. The Beitbridge border post (including the new design under implementation).
2. The Dulivhadzimu gorge.
3. The Beit Bridge.
4. The first settlement in Beitbridge, Nyamapanza village.

The observation sought to identify how the genius loci elements of Beitbridge are imprinted or can be imprinted on the selected public spaces.

14.6 Findings and Discussion

The findings of this study are presented and discussed in line with the first two objectives under the following themes – the *genius loci* of Beitbridge: the Beitbridgeness of Beitbridge and the genius *loci* element enhancement of public space quality. These are the findings of interviews with 13 respondents and observations of selected places and their usage.

14.6.1 The Genius Loci of Beitbridge: The Beitbridge-ness of Beitbridge

The Beitbridge-ness of Beitbridge discussion is classified under the following subthemes: historic elements, sociocultural elements, economic elements, natural environment and resources, and the built environment.

- *Historic Elements*

Beitbridge, named after Alfred Beit and constructed in 1929 to link Zimbabwe and South Africa across the Limpopo River, was reported by most of the interview respondents as an important historic landmark Beitbridge. According to one interview respondent, 'the bridge links that links Venda speaking people south and north of the Limpopo River', and according to another respondent, 'the significant Beitbridge Bridge links Zimbabwe and the rest of South Africa'. The bridge is an important link between Zimbabwe and South Africa.

South Africa is a very important country for Beitbridge town, Zimbabwe, and Southern Africa in general, which is the reason why some respondents pointed at the border post as an important historic place and centre of economic activity. The Beitbridge border post large-scale rehabilitation has seen improvements in the quality of public space. The use of circular forms on the wall and roof and the local stone for cladding creates a sense of place for Beitbridge (Fig. 14.1).

Many respondents pointed to the magnificent Dulivhadzimu gorge, which is part of the Limpopo River, as an important historic place associated with the sacred activities of the native Venda tribe (Fig. 14.2). The name has been used for the only stadium, a primary school, the clinic, and the oldest high-density residential area in Beitbridge. The first known village in Beitbridge was located on the banks of the Limpopo River in a place known as 'Nyamapanza'. According to the Draft Beitbridge Local Development Plan (2017–2032: 20), the settlement consisted of 22 poles and dagga huts. Observational findings confirmed the existence of the settlement, including graves (one grave with an inscription showing that the deceased was born in 1921 before the Beitbridge town was established) and smaller trees surrounded by thick riverine forest. The bridge, the border, the gorge, and the Nyamapanza village make the Limpopo River an important landform of historic interest in Beitbridge (Fig. 14.3).

The gorge and the bridge have long been recognised as important genius loci elements as they are ingrained in the Council logo (Fig. 14.4). Animals may be a symbol of Beitbridge's tourist potential. According to some respondents, the bridge is a symbol of the birth of the town and a source of the name of the town, while the gorge is sacred and carries cultural meaning for the Venda people.

- *Sociocultural Elements*

The findings of the interviews point to the Dulivhadzimu gorge not only as an important feature in the history of Beitbridge but also as a symbol of Venda culture. Related to the gorge are the Chipise hot springs at Chipise in Beitbridge West and mountains such as Jopembe in Beitbridge West. The Nyamapanza culture is also of

Fig. 14.1 The newly rehabilitated Beitbridge border post. (Source: Author 2022)

Fig. 14.2 The Dulivhadzimu gorge. (Source: Author 2022)

great interest in the history of Beitbridge. Other unique cultural issues include the Venda language, cultural dances, songs, and peculiar traditional attire; the Venda culture straddling the Limpopo River on either side, the locals and their livelihoods such as animal husbandry. The salutations 'Ndaa' and 'Aaa' by Venda men and women, respectively, were reported to be a unique cultural gesture. This relates to

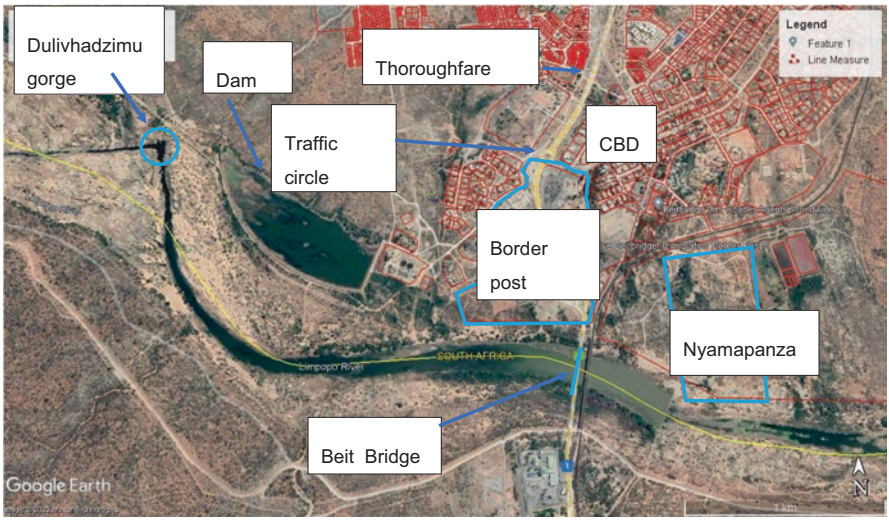

Fig. 14.3 Location of the three major historic sites in Beitbridge (encircled in blue colour). (Source: Google Earth)

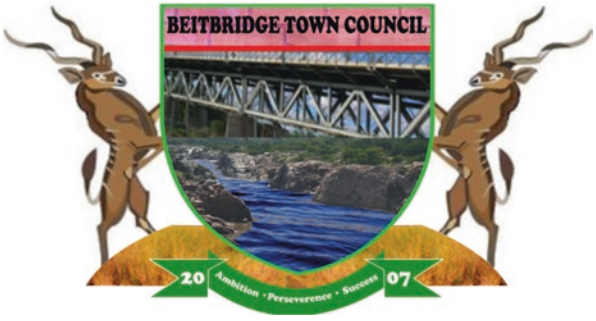

Fig. 14.4 The Beitbridge logo showing the bridge, the gorge, and the animals

the cultural gesture where women lie on their sides with their hands together and in traditional dresses, a sign of respect to the traditional leadership. The local culture has been imprinted in the form of a cultural village in Mpande, Beitbridge West, at the Chief's place (Fig. 14.5). The Mpande Cultural Village exhibits local culture in solidified vernacular architectural language through the materials used, the shapes, the colours, the short wall (*guvha*), and the distribution of facilities. Soils of different colours are used to paint the huts. Cultural functions are celebrated every year in the culture village where the local culture is displayed.

All the interviewees agree that Beitbridge is a multicultural society. The Beitbridge urban has been described as a 'Multiplicity of cultures as a result of settlers who failed to proceed further with their journeys to South Africa, Mixed social backgrounds and races, A multicultural environment'. A respondent observed that

Fig. 14.5 Mpande cultural village. (Source: Author 2022)

many churches in Beitbridge use interpreters due to different linguistic backgrounds. Although it was a melting pot of cultures, Beitbridgeans were described as people characterised by 'good behaviour', and such behaviour must be 'emphasised and maintained. They were described as people who are welcoming and not racialist, which is the reason why there have been no known conflicts on racial lines in Beitbridge. One major annual event, the Mayor's Half Marathon, confirms the findings of the interviews. This is a major social event that attracts people from all over the country. It brings liveliness and recreation to the Great North Road in the central business district (Fig. 14.6). The Dulivhadzimu stadium through soccer, meetings, rallies and functions, the Vhembe Game reserve through animal watching, nature walks, and refreshments are some of the outdoor facilities that promote social life in Beitbridge. However, it was pointed out that outdoor social life in Beitbridge urban is limited. The need for a major public park, neighbourhood parks, and a square was emphasised. Observation of adults racing against each other informally on Justutia Street and exercising along streets point to the need for such social places.

- *Economic Elements*

Ten out of 13 respondents suggested that the Beitbridge border post is the most important economic hub of Beitbridge. The importance is derived from the link it provides with South Africa. In the same vein, the Beit Bridge is equally important. The border and the bridge facilitate the trade of goods and services for the local informal traders and the formal trade by government departments, the private sector, and non-governmental organisations. The border employs several formal and

Fig. 14.6 Mayor's Half Marathon. (Source: Author 2022)

informal employees in both the government (departments and parastatals) and the private sector (clearing, shipping forwarding, and freight). The border facilitates migration to and from South Africa. Observation of the activities and number of people involved at the border during normal days, outside COVID-19, makes the border a semi-public space on its own – semi-public because access is restricted and controlled.

The tourism potential of the urban and rural Beitbridge area was identified as an area that can be used to promote economic development. The main river systems, namely, the Limpopo, Mzingwane, Bubye, and Shashe rivers, were said to be at the centre of tourism. The magnificent gorge, the Zhovhe dam, the Tuli Circle, Sentinel, Fishing Camp, the Great Limpopo and Greater Mapungubwe Transfrontier Conservation Areas, the Bubyana Conservancy, the Vhembe Game Park in town, and other game parks and Safari areas in rural areas are attached to at least one of these rivers or their tributaries. The finding is in line with the assertion of Khombe et al. (2011) about Beitbridge tourism:

> attractions include ancient sites, artefacts, historical sites, cultural attractions of the Sotho, Tshangani and Venda tribes, Dinosaur fossils, vast natural wilderness areas, and a diverse range of wildlife including the Big-5, birds…approximately 1900 Elephants, 1000 Hippopotamus, 555 Giraffes, 36 lions, 430, Leopards, 1400 Zebras, 1500 Wildebeest, 1950 Kudus, 15 000 Impalas and many smaller animals.

However, Khombe et al. (2011: 15) lamented that of all tourists who pass through the Beitbridge border post, only 1% are destined for the Beitbridge district. In this case, one of the respondents' comments is relevant: that there is a need to map all the tourist facilities and publicise them.

Agriculture was presented as an important economic activity in Beitbridge. There are citrus plantations such as the Nottingham estate along the Limpopo River, Benfar, Cawood, and Bishopstone and Zhovhe estates along the Mzingwane River. There are many other agricultural activities, including animal ranching. The growing of crops such as millet, sorghum, and rapoko and the rearing of livestock such as cattle, goats, and donkeys are taking place at a subsistence level. Four respondents emphasised the importance of cattle as a source of livelihood and the role of donkeys and donkey-drawn scotch carts in the construction of Beitbridge in history and today. A respondent described the Beitbridge district as a 'livestock hub'.

- *Natural Environment and Resources*

All 13 respondents described the extremely high temperature that rises to above 40 degrees Celsius as unique. Most of the respondents suggested that solar energy can be used to supplement the struggling national grid. This can be done through both home-based solar systems and solar farms that feed into the grid. Rainfall is low and erratic.

While admitting that there are different types of trees characterising dry regions, most respondents pointed to the baobab, the mopani, and marula trees as important trees in Beitbridge. The mopani trees, in addition to being dominant, are a habitat for *mashonja* (*mopane worms*), an important food consumed in its natural form or processed into different food products. The baobab is the largest tree in the district in terms of trunk size, it is a tourist attraction, it is a source of food (fruit, *lolly* juice, baobab drink, used as a porridge ingredient) through the fruits of the baobab, and its barks and leaves are used for medicinal purposes. One respondent observed that 'the baobab trees along most highways are used as lay-bys' perhaps because of their visible or shady nature. The marula tree provides food in the form of marula fruits, marula nuts (thebvu), and beer (*mukumbi*) and is used for wooden products such as stools and *mituli.*

According to some respondents, Beitbridge is home to precious stones such as the 'beautiful or shiny rocks on Jopembe Mountain', used for cladding and ornamental purposes, and granite rocks, used for concrete stones. There are also minerals such as coal, tantalite, and diamond. In terms of surface water, the Zhovhe dam, one of the top 10 national dams, is the largest water body in Beitbridge with a capacity of 133 million m^3. It supplies water to the citrus plantation downstream of the Mzingwane River and the town of Beitbridge during the dry season. Respondents agree that the water table in Beitbridge is generally high.

The natural landscape of Beitbridge is shaped by the Limpopo River and its tributaries (Shashe, Mzingwane and Bubye rivers) so that the land generally falls and drains to the South East. The general slope is punctuated by highlands such as Jopembe Mountain and the Ngulumbi hill in Beitbridge west and the Nuli and *Ngwanawandau* mountains to the east. Many respondents agree that there are a few mountains in Beitbridge.

- *The Built Environment*

The responses from the interviews show that the state of the buildings and the layout of the settlements are unique in rural areas: the rondavels, the short wall (*guvha*), the use of earth as building material and paint, and the use of cow dung as floor screed. Refer to Fig. 14.5, the cultural village, which is an important place in rural Beitbridge. The observation of the respondents is that the layout of huts within a home and the distribution of homesteads do not follow a defined pattern since they are not formally planned.

In Beitbridge urban, the Old Border Post, the Post Office (including the garden in front), and the White House were described as important due to their historic interest, while the Zesa shopping mall and other privately owned buildings were

rated as buildings of high architectural merit. Observation reveals that the border upgrade is promising to positively change the face of the public space, although it still needs improvement towards enhancing the genius loci of Beitbridge and Zimbabwe. The respondents' observation is that urban settlement is modernised and planned and follows a grid pattern in some areas.

14.6.2 The Genius Loci Element Enhancement of Public Space Quality

Drawing from the previous section, there are eight main Beitbridge genius loci elements or areas, namely, the Alfred Beit Bridge, the Dulivhadzimu gorge, the Beitbridge border post, local culture, the potential for rural and urban tourism, domestic animals, natural resources, and buildings of historic interest and architectural merit. The potential of each of the elements in improving public space quality is a subject of this section.

A respondent suggested: 'Even smaller bridges could bear resemblance to the bigger bridge to make a statement about being the Beit bridges.' Bridge designs for some roads, in particular major roads may incorporate some elements (type, texture, materials used, stability, its connectivity, or symbolic role) of the Beit Bridge. Another respondent suggested that a gateway should be built to resemble a bridge. This can be done by creating free-standing sculptures or pictorial images attached to the 'Welcome to Beitbridge Sign' affixed at both the Bulawayo and Masvingo road entry points. The genius loci of the Alfred Bridge itself must be identified, protected, and enhanced. For example, the Alfred Beit statue, installed by Henry Pegrams in 1928, must be maintained.

- *The Dulivhadzimu Gorge*

Most of the respondents agree that the gorge needs to be enhanced to improve its attractiveness as a centre for tourism and recreation. The gorge and its surroundings may be developed into the main public park for Beitbridge. The steep and rocky cliffs, the charming sounds and views of the water, and the surrounding trees and sand in some areas give the gorge a unique character. The CABE (2000) agrees with this idea of taking advantage of the existing natural setting when it stated that 'many of the places which we now think of as being pleasantly distinctive grew naturally in response to local circumstances'. Development that responds sensitively to the site and its setting is likely to create a place that is valued and pleasing to the eye. This is an important approach given that there is no formally defined public park in Beitbridge. The gorge environment may be shaped to make it usable, lively, and safe while maintaining its wilderness corridor status and its cultural significance and observing environmental and trans-boundary laws. One option is to display either the bridge or the gorge artistically and innovatively as part of iconic buildings or physical elements such as water fountains at the gateway or thoroughfare locations to enhance the heritage value of Beitbridge.

- *The Beitbridge Border Post*

One respondent pointed out: 'Create more attractions like buildings near the border.' This is a necessary proposal given the importance of the border as the southern gateway to Zimbabwe and Southern Africa. The buildings and border post are experienced from the outside. Therefore, the border post has to be designed in such a way that it provides a memorable and unique experience to the visitors. This implies that the building facades at the border post, the shapes of the building components, the colours and materials used, and the general outdoor environment are expected to make statements about the identity of Zimbabwe and Beitbridge in particular. The New Masterplanning Limited's (2008: 11) assertion is relevant: 'often the public realm is the first and lasting impression … on a visitor … the public realm plays a significant role in the statement a town makes and its profile as a destination'. Therefore, the design of the border environment through the first traffic circle to the new traffic circle at the Masvingo turn-off must be meaningful. The two great traffic circles must be designed to talk about the identity of Beitbridge.

Although the large-scale upgrade of the Beitbridge border post has already improved residents and visitors' experience of public space, more innovative work is still expected. According to Muleya's (2006: 76) proposed design of the Beitbridge commercial gateway, the border and thoroughfare environs can be designed to provide 'a summary of the scenery in the country' for someone entering the country. As shown in Fig. 14.7, Muleya proposed a design of the commercial gateway courtyard (2006: 76) in such a way that:

> The cave café … resembles the Matopos Hills. The cave café simply translates to thee caves that are found in that region. Above the cave café is a waterfall. The sounds of the gushing water, the breeze created, will automatically take one's mind to Victoria Falls. The lifts that are on either side of the court are housed in 'cones'. The cones are derived from the Great Tower in Great Zimbabwe (2006: 76).

The newly constructed traffic circle at the Bulawayo highway and Masvingo highway junction (Fig. 14.8) is a good example of a design that makes a statement about Zimbabwe. However, a balance must be struck so that the Beitbridge public space exhibits both local and national tourism facilities with a bias towards Beitbridge to attract more tourists locally.

- *Local Culture*

Respondents reported various but related views on how culture can be used to enhance the quality of public spaces. They proposed the construction of a cultural and heritage site or Venda culture village within the public space, which can be done as part of the enhancement of the Dulivhadzimu gorge. In order to popularise the first settlement in Beitbridge, the Nyamapanza village may be reconstructed while enhancing its genius loci and used to shelter workers at the municipal farm and waste stabilisation ponds, and the name 'Nyamapanza' maintained throughout the area, including the farm and ponds. The local language, in particular Venda, can be preserved by using road signs written in both vernacular and English. It was proposed that the names of neighbourhoods (places), buildings, and streets be local and rooted in the local history and culture to incorporate a sense of identity into the

Fig. 14.7 The proposed design of the commercial gateway, Beitbridge summarising the scenery in the country. (Source: Muleya 2006: 76)

public space. The *Ndaaa* and *Aaaa* salutations, which are greeting and welcoming signals, can be affixed in the textural form at entry points, particularly the border post and the main entrance routes in Masvingo and Bulawayo and the main transit point, such as the bus stop. The *Ndaa* and *Aaaa* written on the Blair toilet facilities in the cultural village of Mpande (Fig. 14.5) to represent gentlemen and ladies, respectively, is interesting and can be replicated in public urban toilets. The gesture of greeting traditional leaders in local clothing (Fig. 14.5) can complement the Beitbridge city welcome statement either in sculptural or pictorial form. This way the local culture will be presented in a solidified voice so that it can be easily passed on to the next generations.

According to some respondents, the public space must promote cultural activities. One respondent pointed out that 'Beitbridge shares a lot with Musina and Makhado in RSA. The municipalities of both countries need to share sporting and recreational activities, youth festivals etc.'. The same applies to cultural events, where they may display local songs, dances, attire, food, and artefacts, among other things. The Project for Public Space (2008) concurs that public spaces should provide festivities, eateries, drinkeries, markets, and cultural centres. Agricultural products (citrus, melons, small grains) and natural products (baobab fruits, marula beer, processed marula nuts, mashonja) and artefacts can be displayed and sold in such markets. Annual events in public parks were encouraged, especially in the Dulivhadzimu gorge or other public areas where everyone can have access. This way, according to a respondent, would 'promote domestic tourism and cultural exchange and showcases'.

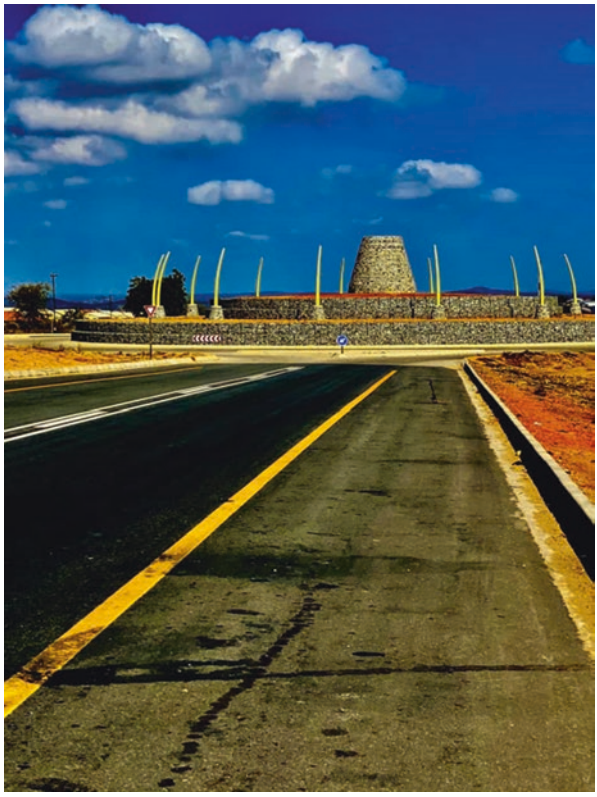

Fig. 14.8 The great traffic circle exhibiting the Great Zimbabwe conical tower. (Source: Author 2022)

The Mayor's Half Marathon has become an important culture in Beitbridge. Given that other social activities have to be promoted in the Beitbridge public space, there is a need for the development of a square that will not only serve as a convergent point for the competitors but also support other social activities. While the planning, design, and management of public space are supposed to be guided by the 'genius loci' of Beitbridge, it must be aware of the 'multicultural status' of Beitbridge and the need for inclusivity in line with the New Urban Agenda and Sustainable Goal 11. Everyone has a right to participate in and enjoy public spaces (Urban October 2015).

- *Potential for Rural and Urban Tourism*

Good planning, design, and management of Beitbridge's public space can potentially uplift Beitbridge's urban tourism potential. According to a respondent, tourism can be promoted through an 'emphasis on local traditions such as dance, food, and culture'. As discussed under the Beitbridge border post, the quality of the outdoor built environment and, in particular, the experiences evoked promote both local and national tourism. The public space in Beitbridge can be carefully designed and managed to advertise and exhibit rural and national tourism opportunities.

As discussed previously, the Limpopo riverine environment and its tributaries are the core of rural and urban tourism in Beitbridge. The two Transfrontier Conservation Areas, one to the west and the other to the east of Beitbridge, and the wildlife along the Limpopo River present an opportunity to integrate rural and urban tourism. According to one respondent, Beitbridge planning should have considered 'wildlife corridor streams to allow free animal passage along the Limpopo River.' This would create a lively riverine public space experience for both residents and tourists upon entry into Zimbabwe.

According to Khombe et al. (2011), creating a link between the two conservation areas has the potential to improve trans-frontier tourism, making it a new tourism product. The economic return may encourage communities to 'modify their settlement patterns to create wildlife corridors on land primarily allocated to wildlife'. Wildlife corridors, controlled public lighting, restricted building height, and dark colours are some of the planning standards used to attract wildlife to the City of Victoria Falls, thus showering tourists with a unique experience.

- *Domestic Animals*

Cattle and donkeys were reported as important animals in the history and development of Beitbridge town. The construction of the Beitbridge quarantine centre as part of the border post-upgrade project confirms the value of livestock. There is a long-standing debate as to whether they can be left to roam freely in urban public spaces or should be confined to rural areas. Efforts have been made unsuccessfully to exclude animals from urban areas. One view is that they can be allowed to roam freely in urban public space, since they are the animals that identify with Beitbridge, while finding ways to reduce any negative effects or menaces they present. The other view is that they are not supposed to be a part of the urban setup; they are naturally ruralites. A study in North-West Nigeria found that the number of donkeys was higher in urban areas, where they were used more intensively and played an important role during ceremonies compared to rural areas. However, they were given a low status in urban areas compared to other livestock (Hassan et al. 2013: 6202). On the other hand, a study in Bangladesh found that cattle transmit zoonotic diseases to humans and are associated with the disposal of dung and urine in public places, malodour, and road blockages (Cosmopolitan 2016). Although this study is not able to conclude the fate of live domestic animals in the Beitbridge public space, decisions about these animals must be made objectively.

One respondent suggested that a bull sculpture strategically located in the public space can symbolise the importance of cattle in Beitbridge. This may be an alternative to a situation where live animals roam the public space. One respondent said: 'urban agriculture should be practiced and agricultural shows be held in Beitbridge district to showcase the local cattle breed'.

- *Natural Resources*

The most notable Beitbridge genius loci features are high temperatures, important trees, precious stones and minerals, and an abundance of water. The high temperatures in Beitbridge make public space in Beitbridge unbearable, especially during winter. One respondent highlighted: 'In light of the heat more space should

be allocated for the high density stands'. However, this approach may not be economic. The use of street trees, continuous canopies, and water features such as pools and fountains are encouraged to create a cooler microclimate. Public space may be provided for solar farms to generate electricity to supplement the national grid. This is in line with Zimbabwe's heritage-based philosophy, which emphasises the use of local natural resources in the production of goods and services (MHTESTD 2019).

To maintain the character of the natural landscape, where possible, indigenous trees may be maintained to be a part of the public space. They may be planted as street trees and, in some cases, as part of public parks. The need for trees of both nutritional and medicinal value was stressed. The development of a protected herbal garden is an approach that, according to Muleya (2020), is used by the City of Bulawayo to provide medicinal plants as part of the public park system. One respondent proposed a nursery for indigenous trees, and the other two respondents commended the incorporation of baobab trees at the Makado road traffic circle as a good example. The baobab tree, the Marula, and the Mopane tree were identified as important trees that must dominate public space to maintain the naturalness of Beitbridge. These trees and other trees of medicinal, nutritional, and ecological value must be preserved according to Section 31 of the Regional, Town and Country Planning Act (29:12).

The local usage of the shiny Jopembe rocks for the cladding of building façades in public areas is one way to promote Beitbridge genius loci. If the rock was used during the upgrade of the border post, that would create a sense of belonging to the Beitbridgeans. Quarry stone boulders can be used as gabion as a way of boasting about the availability of the important rock.

Despite low and erratic rainfall, the large water body of the Zhovhe dam and the underground water are important resources for the development of public spaces through the watering of street trees and the development of water features in public spaces.

- *Buildings of Historic Interest and Architectural Merit*

To improve the quality of the Beitbridge public space, it was suggested that old buildings, and in particular buildings of historical interest and architectural merit, must be spruced up. That they need to be listed and preserved according to Section 30 of the Regional, Town and Country Planning Act (29:12) to tell the history of Beitbridge does not mean that they are maintained in a state of disrepair. It is the genius loci in them that need to be identified, protected, and enhanced during refurbishment.

14.7 The Genius Loci-Public Space Quality Framework

In line with the third objective, this section presents a *genius loci*-public space quality framework that will guide the protection and enhancement of the Beitbridge *genius loci* towards public space quality and local and national development.

Figure 14.9 shows eight genius loci elements for Beitbridge and how they can be used to enrich the quality of public spaces. It should be noted that the Great Limpopo River is a *super genius locus* of Beitbridge given its importance as a natural landform and as a boundary that separates Beitbridge and South Africa. The gorge, the bridge, the border post, tourism, and other cultural elements are important genius loci elements that are hinged on the river.

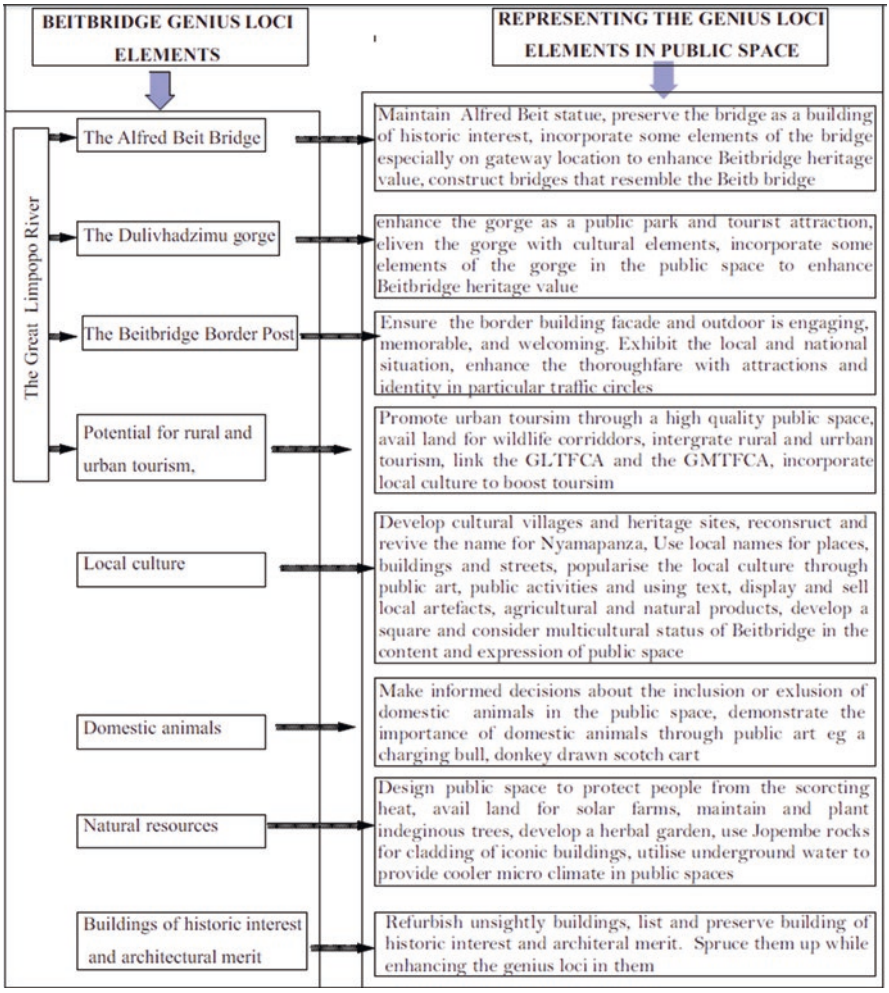

Fig. 14.9 The Beitbridge genius loci-public space quality framework

14.8 Conclusion, Recommendations, and Future Research

The genius loci approach was successfully used to expose the particularities and potentialities of Beitbridge. Eight elements of genius loci were identified, including a super genius locus, the Limpopo River, which is the parent of at least four elements of genius loci. The eight elements represent the Beitbridge-ness of Beitbridge.

The Beitbridge genius loci-public space framework, which is the main product of this study, is a springboard that stands to guide decision-making relating to public space quality and the shaping of the Beitbridge built environment. The preparation of master plans, local plans, layout plans, local development plans, and strategic plans may utilise the framework to tap into the important background of Beitbridge. Other settlements may prepare their own frameworks, which will be shaped according to their circumstances. While the recommendations of the study are ingrained in the framework, some recommendations that need further emphasis are as follows:

1. The Beitbridge Municipality shall develop a system of public parks, that is, a major park and neighbourhood parks. While the gorge area and the stream buffers can be used, there is a need to incorporate public parks into future plans. The Limpopo River and its local tributaries may be used to develop a continuous public space system for Beitbridge while incorporating wildlife corridors.
2. The Municipality may replan the Central Business District (CBD) where development has not taken a plan to include a public square.
3. The border post outdoor environment, the traffic circle, and the thoroughfare must be carefully planned, designed, and managed to ensure that they are pleasant, memorable, and engaging and exhibit the identity of Beitbridge. A local plan for this area and the CBD, which is the spinal cord of Beitbridge, is required to guide development through specific standards, proposals, and policies.
4. Where elements of the Dulivhadzimu gorge and the Alfred Beit Bridge are to be incorporated into the built environment, the intention is not to encourage kitsch reproductions of the bridge and the gorge. Artistic and innovative incorporation is required; for example, the palisade fence or ramp railings for public buildings may resemble the bridge side railings, or public swimming pools and fountains may incorporate gorge features.

This qualitative study has managed to bring to the fore the eight genius loci elements for Beitbridge. However, a quantitative study is still required to validate the elements and identify the most important element for Beitbridge. Future research is also required on the need, value, and control of domestic animals in urban public spaces.

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Chapter 15
From a Pre-colonial Dzimbabwe Capital to a Colonial Fort and Beyond: Understanding Masvingo City's Governance Traditions and Growth Patterns

Kudzai Chatiza and Tariro Nyevera

Abstract Zimbabwe's urban history and governance traditions are not fully told without Masvingo's story. The city's rich and unique governance and growth stories draw on its proximity to Great Zimbabwe and related tourism assets, being the oldest urban settlement and having hosted the first colonial Fort and the socio-economic structure of its hinterland. Unfortunately, Masvingo City's political, social, and economic importance in Zimbabwe is often inadequately understood. This denies Zimbabwe's urban planning and governance some critical lessons. Drawing on the literature, key informant interviews, focus group discussion (FGD) sessions, and a household survey targeting Old Mucheke and Victoria Ranch households, this paper discusses lessons based on the city's governance and spatial growth. Characterising the city's colonial and post-colonial urbanisation and local governance processes surfaces lessons for urban Zimbabwe and other parts of Southern Africa. The uniqueness of the city's policies and strategies from the perspectives of urban sustainability and resilience is revealed. Its distinct transition and impacts on urban policy, both in need of further inquiry, are partially illuminated.

Keywords Urban growth · Political economy · Urban planning · Urban vulnerability

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15.1 Introduction

This chapter seeks to surface the comparative advantage that Masvingo City has in terms of contributing to urban development and management in Zimbabwe and beyond. The city has a pre-colonial, colonial, and post-colonial importance that does not appear to have been sufficiently utilised for shaping urban policy and practice. Established in 1890 as Fort Victoria by the Pioneer Column with the actual Fort built in 1891, Masvingo became a municipality in 1953 and a city in 2002. It is the oldest and fifth-largest urban settlement in Zimbabwe with a population of 90,286 (ZIMSTAT 2022). The city is a distribution and commercial centre serving a total provincial population of 1.6 million, 10.8% of Zimbabwe's 2022 population. Great Zimbabwe (Dzimbabwe), a city built of dry-stone walls spreading from atop a hill to the valley below, is only 20 km from Masvingo City. Built in the eleventh century, it is part of 300 other similar sites in the Southern African Development Community (SADC), the city's pre-colonial network with which it was linked.

Masvingo's social and political economy is connected to rural agriculture (mainly irrigated sugar, dryland crops, and livestock production), tourism, and mining. As a provincial capital, government services also play an important role in driving the city's growth. The City of Masvingo (1992) noted that it was increasingly recognised as a decentralisation centre that would benefit from projects being implemented in the province. Tourism anchored on the Great Zimbabwe Monument (ancient city) and Lake Mutirikwi Recreational Park also drive the city's economy (see Fig. 15.1 below). Further, the completion of Tokwe-Mukosi Dam south of the city will also boost the industry.

The city's strategic location on the junction of two major roads connecting it to Mutare to the East, Harare to the North, Bulawayo to the West, and Beit Bridge to the South also serves the city well, reinforcing its status as a distribution hub of southeastern Zimbabwe. Post-2000, urban housing demand from rural public sector

Fig. 15.1 Masvingo City's immediate environs. (Source: City of Masvingo (1991: 51, Map 11))

employees and urban lodgers helped drive the city's growth at a time when its industries collapsed. An additional post-independence driver of city growth was the establishment of a tertiary institution in 1999, the Masvingo Degree Awarding Program of the University of Zimbabwe, which became Masvingo State University in 2002 and Great Zimbabwe University in 2007 (Great Zimbabwe University 2022). The University has multiple campuses in the city and the nearby Mashava town. The universities have added to the student population from the three teachers' training colleges of Bondolfi, Morgenster, and Masvingo. These three institutions (Catholic, Dutch Reformed, and state, respectively), all in the city within 30 km of it, already placed demand on the city in terms of education services. As such, students, faculty members, and education-related businesses make a significant contribution to the city's economy.

However, the above strategic and locational advantages do not seem to have sufficiently overcome meso- and macro-economic factors, draining the city's growth potential. The 1980 Draft Master Plan and the 1992 Master Plan (City of Masvingo 1991, 1992) detailed some of the key challenges to the planned growth of Masvingo: (i) rigid development control in the town centre and industrial and low-density housing areas based on the 1956 Outline Plan and 1970s Town Planning Schemes (see Fig. 15.2); (ii) a pressure on land uses and infrastructure arising from population growth, (iii) a shortage of accommodation, particularly in Mucheke; (iv) a city centre developing along only two axes, leaving considerable land undeveloped; and (v) the absence of a distinct economic base, forcing reliance on shallow service industry, and stretched public utilities (Government of Zimbabwe 1980). The city's first post-independence spatial planning framework was adopted by Council on 30

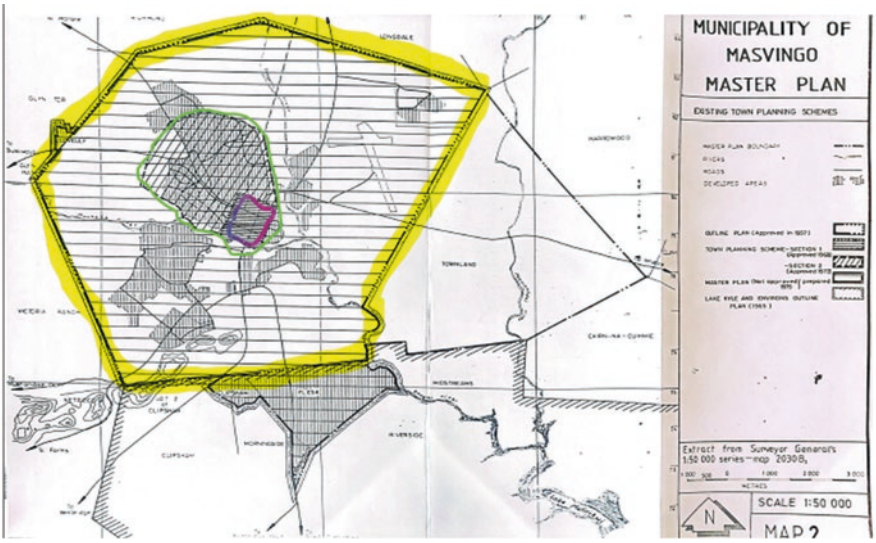

Fig. 15.2 Masvingo City outline plan and town planning schemes. (Source: City of Masvingo (1991:7))

November 1992, approved by the Minister responsible for local government on 4 October 1993, and became operative soon thereafter. The Written Statement for the 1992 Master Plan highlighted that the city had not benefited from industrial decentralisation and raised the issue of previous Town Planning Schemes having rigidly limited city centre development (City of Masvingo 1992). It remains the first and till now only approved post-independent Master Plan for the city.

The area with a yellow-shaded boundary is what the 1956 Outline Plan (approved in 1957) focused on, with the hatched areas being the developed parts of the town. The '1970s schemes' were largely two: one approved in 1968 (shaded red) and the other in 1972 (shaded green). The 1957 boundary was also used for preparing the 1979 Master Plan, which was, however, not approved.

A broader context for the city's importance following early independence and the application of the Growth Centre Strategy, rural development, and other developments used to justify the emphasis of the city as a provincial centre. Yet a 2012 attempt to prepare a Master Plan highlighted some of the same challenges identified in the two previous Master Plans. This suggests that the city's development as a secondary urban area may have lacked a grounded framing and adequate national support. These macro-level strategic gaps reflect how secondary city experiences inadequately inform urban development and management in Zimbabwe and elsewhere in the SADC region. Capitals' experiences dominate policy debates and, inevitably, urban development and policy frameworks. In Zimbabwe's case, urban development policy remains a key gap that the government has long recognised (Government of Zimbabwe 2020) (Fig. 15.3).

15.2 Conceptual Framework and Methodology

There are three spatial characteristics used to define secondary cities. These are regional, metropolitan, and corridor. These are illustrated in Fig. 15.4.

Secondary cities are often referred to as mid-sized or intermediary cities. They are not mere copies of metropolises but full or stand-alone urban centres. Ammann and Sanogo (2017) argue that the urban development of secondary cities is often compared to, and ultimately determined by, the exterior, which pertains to primate cities. The external contribution and transformations produced must be reappropriated, reconfigured, and reinvested according to the logic of a pre-existing and locally constructed urbanity (Githira et al. 2020). Though cities may have prolific overlapping interconnections, they remain distinctive regarding how they should be classified and developed. This distinctiveness of cities is critical if properly utilised to guide urban development. However, this is often overshadowed by the development trajectories and political economies of primary cities (McGregor and Chatiza 2020).

It is important to look at cities based on their wider cultural, economic, political, and social landscape relevance. By simply focusing on size, the national and regional contributions of secondary cities become difficult to grasp and their functions

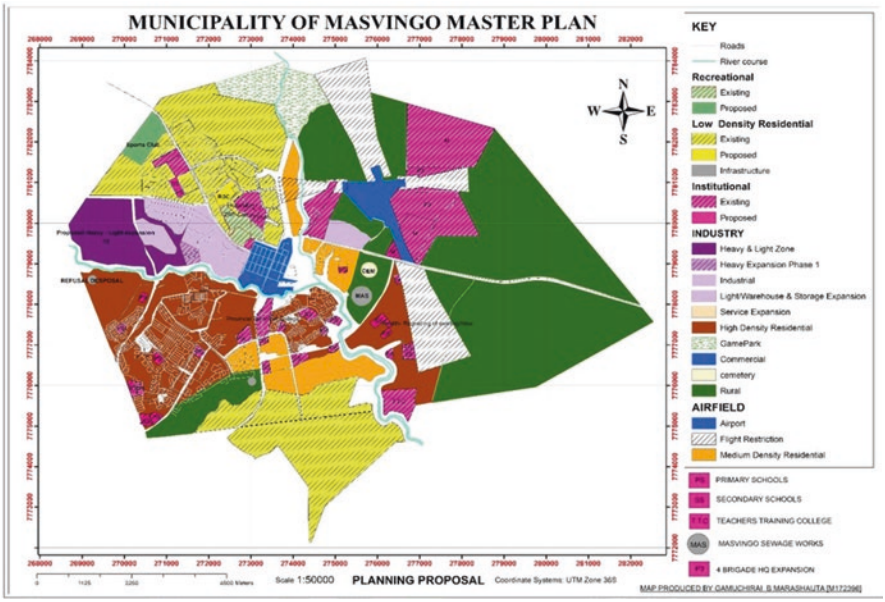

Fig. 15.3 Masvingo City master plan. (Source: City of Masvingo (2022))

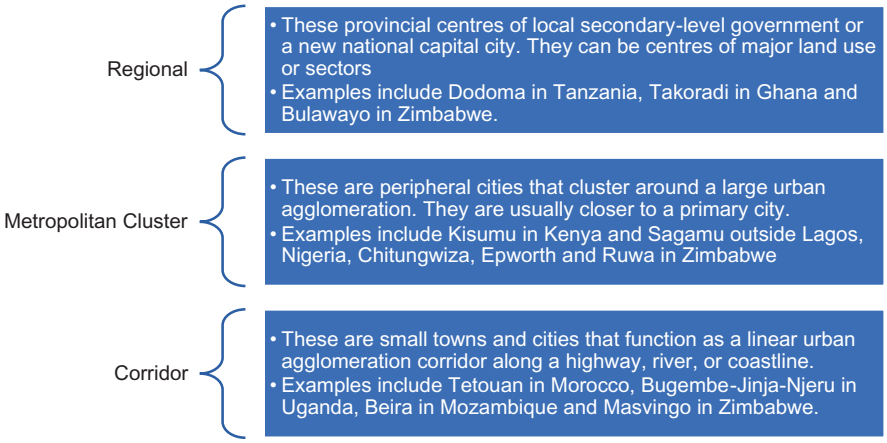

Fig. 15.4 Spatial characteristics of secondary cities. (Source: Adapted from ADB and Cities Alliance (2019))

continue to be underutilised (Cities Alliance 2015). Several studies, particularly in Africa, have focused more on megacities, ignoring the relevance and impact of secondary cities (Ammann and Sanogo 2017; ADB and Cities Alliance 2019). It can also be said that primate cities have overshadowing impacts over all other urban centres within a country. When compared to their metropolitan counterparts, secondary cities seem to be primarily characterised by what they lack in comparison

(Unseld 2017). This narrative needs to be changed by looking at secondary cities based on their performance and potential. This will influence efforts towards utilising the existing potential of secondary cities (Unseld 2017). The Brundtland Commission (1987: 197) argued that 'a city's prospects…depend critically on its place within the urban system, national and international'.

Many secondary cities struggle to raise capital and attract investments needed to build infrastructure, welcome productive enterprises needed to create dynamic economies, and have vibrant communities enjoying improved livelihoods and accessing jobs (Cities Alliance 2015). Increasingly, economic geography shapes the functions of these cities, rather than actual area or population size. The importance of function critically shapes urban policy, planning, and development than it has in the past (Ammann and Sanogo 2017). This has important implications for urban managers, officials, and policymakers of secondary cities on how they plan and develop enabling environments and strategic infrastructure to support the development of more competitive cities (Githira et al. 2020).

The chapter draws on primary and secondary data sources to illuminate what Masvingo City, Zimbabwe, offers to urban development policy in Zimbabwe and the SADC region. Academic, policy, and development literature pieces were used in conjunction with primary data. Primary data gathering was supported under an ongoing Inclusive Urban Infrastructure (IUI) research project being implemented with the University of Sussex's Sussex Centre for Migration Research within the School of Global Studies. It involved key informant interviews, focus group discussion (FGD) sessions, a household survey targeting Old Mucheke and Victoria Ranch households, and the 'enumeration' of service delivery issues over a 6-week period by young community contacts (YCC). The YCC initiative involved young residents, two in each of the six IUI settlements, capturing pictures demonstrating the state of services and writing up stories about the pictures taken. This was an adapted version of the photovoice methodology, designed to trigger conversations between these young contacts and community leaders to develop an understanding of issues while also contributing to understanding local service delivery and governance. Using these data, the chapter discusses Masvingo's governance and spatial growth performance to illuminate what national and regional urban policy can learn from the city.

15.3 City Governance Frameworks, Structures, and Functions

Masvingo City Council is governed by a ten-member Council made up of elected representatives. The city's current vision is to become an industrialised world-class metropolitan city by 2030 (City of Masvingo 2022). The policy and governance functions of the city, like other urban local authorities, are derived from several national laws. These include the Constitution of Zimbabwe; Provincial Councils

and Administration Act; Public Procurement Act; Urban Councils' Act; Regional, Town and Country Planning Act; Public Health Act; Public Finance and Management Act; Labour Act; Burials and Cemeteries Act; National Social Security Authority Act; Environmental Management Act; Food and Food Standards Act; Liquor Act; Standards Act; Factories and Works Act; Children's Act; and relevant statutory instruments (ibid). The Council's policy-making functions are based on a committee system. This involves detailed deliberation of motions on specific service delivery or governance issues and making recommendations for Council consideration. The issues are deliberated on and recommendations made at the committee level. These recommendations are then brought to the full Council (the body where all ten (10) Councillors sit, including the Mayor). Masvingo City has five (5) Council Standing Committees. These are (i) Health, Housing, and Environmental services; (ii) Public Works and Planning; (iii) Finance; (iv) Human Resources and Gender; and (v) Audit. The Council also has representatives who sit in boards of other strategic institutions in the city.

The Executive has five (5) technical departments led by the Office of the Town Clerk. These are Finance, Health, Engineering, Housing and Social Services, and Chamber Secretary. The Finance Department performs the overall municipal financial functions of the Council, including revenue collection, budget preparation, the allocation of financial resources, and the preparation of financial statements. City Health manages health care systems, the provision of services to residents, and the licensing of business operations that need health certificates. Issues of city regulations, by-laws, and the general overseeing of Council operations are overseen by the Chamber Secretary's Department, which also hosts the city's legal advisory services. This department is also the custodian of city records, including minutes of Council meetings. Housing and Social Services oversees housing provision and management, which includes schools, recreational facilities, parks, cemeteries, and burial grounds. The Engineer's Department performs physical planning, infrastructure development, and management, including overseeing water and sanitation systems.

15.3.1 The City's as a Node on Multiple Corridors

With a present population of 90,286, Masvingo can be classified as a medium-sized city. This population represents an insignificant 5.9 percent of the total provincial population (ZIMSTAT 2022). The city straddles the Harare-Beitbridge and Mutare-Bulawayo highways, serving Zimbabwe's East-West and South-North corridors. It seats as the main transport node from South Africa into Central Africa through Zimbabwe. Notwithstanding its old age and being the first largest settlement in the country, the city has long been outpaced by far younger cities in Zimbabwe, which include Bulawayo, Chitungwiza, Mutare, and Gweru, as well as the capital, Harare (Nyawo and Rich 1980).

Masvingo City emerged as a key part of these corridors, facilitating the entry, extraction, distribution, and transportation of resources from the country. It developed, from the colonial era, a road transport network (Chingarande et al. 2020). In the early years, it was also the first town reached by visitors to Rhodesia from South Africa, which had some growth benefits. It was soon eclipsed by Bulawayo once the railway arrived there in 1897 (Jenjekwa and Barnes 2017), with Masvingo City only being connected by rail in 1914 (Nyawo and Rich 1980) from Gweru through Mvuma. This meant that the city became somewhat of a backwater in the development stakes compared with what might have been. However, road traffic increased after the opening of the Alfred Beit Bridge over the Limpopo at the settlement now called Beitbridge. Masvingo retained the spotlight from tourist visitors from South Africa to the Zimbabwe ruins (i.e., Great Zimbabwe Monument) and, in later years, Lake Kyle (Jenjekwa and Barnes 2017).

The city is strategically located. It is equidistant from all major cities in the country, 293 km from the capital city, Harare; 282 km from Bulawayo; 289 km from Beitbridge, bordering South Africa; and 297 km from Mutare in the eastern highlands, bordering Mozambique (City of Masvingo 2019). Surfaced roads in relatively good condition link Masvingo with these other urban centres and beyond, allowing the city to play a strategic role in national and regional population movement (Chingarande et al. 2020). Masvingo additionally performs some logistical functions. These functions are enabled by air, road, and rail. However, this strategic infrastructure advantage has not been fully utilised. As such, it is not sufficiently driving the city's development when compared to other national and regional cities like Cairo, Johannesburg, Lagos, Kinshasa, and Addis Ababa, which perform similar functions (Githira et al. 2020).

The city's growth was undermined by the coming of alternative routes linking sites that came after Masvingo. This is, however, not a new phenomenon. Ajobiewe (2016) argues that the evolution of regions and urban agglomerations is seen as following development cycles that include periods of rapid growth, followed by periods of slower growth and possibly decline. These factors and cycles have also affected Masvingo's role as a city. This is different from the emergence of secondary cities such as Gweru, Kwekwe, and Mutare. Gweru and Kwekwe thrived because of involvement in industrial manufacturing anchored on mining and enabled by good rail and road connections to cities with complementary or related functions. Mutare emerged and thrived because of being a sub-national centre with a provincial capital status (Githira et al. 2020), further driven by being a border city as well as being a hub for agricultural and tourism functions, which are better performing compared to Masvingo. Mutare, thus, grew from a historical trading centre to a sub-national and regional political, economic, and social centre.

15.4 Peculiar Drivers of Masvingo's Urban Growth and Significance

15.4.1 Positive City-Residents Relations

The relations between the city and its residents are stable and advanced. The synergies are generally steered by the efforts of civil society organisations (CSOs): the work by CSOs such as Dialogue on Shelter (housing and livelihood development in Mucheke and Victoria Ranch) and MURRA (We Pay (residents) You Deliver (council) advocacy work (We Pay You Deliver Consortium 2018). An interview held as part of the Inclusive Urban Infrastructure study with the town clerk on 3 March 2021 showed how instrumental Dialogue on Shelter was for the Mucheke upgrading project. In terms of MURRA, there are cases where the CSO allied with the city to block the confiscation of Council property, citing negative service delivery implications. MURRA used local forums and the courts to register its voice regarding the fate of the public assets (Musekiwa and Chatiza 2015).

In 2013, UN-Habitat had a programme to strengthen citizen participation in urban local governance in Zimbabwe. The programme was implemented in Masvingo, Bulawayo, Gweru, Kadoma, and Kwekwe (Musekiwa and Chatiza 2015). The focus was on conflict transformation and improving relations between councillors and council officials, as well as with residents. Residents were involved in processes targeted at improving their contributions to city policymaking and service delivery. In an interview, a senior official of the ministry responsible for local government overseeing Masvingo City confirmed the city's traditions of engaged relations with residents (Interview, 30 April 2021). The city's COVID-19 responses also involved listening to residents' demands, resulting in the provision of water using bowsers and attending to other resident-raised requests. These experiences built co-governance traditions and are documented in an assessment of multi-level government COVID-19 responses in Zimbabwe, where Masvingo City was one of the case study cities, with the others being Mutare, Harare, and Bulawayo (Chatiza et al. forthcoming).

15.4.2 Infrastructure and Service Provision Models

Rakodi (1997) cited reasons for the failure of many urban authorities in developing countries to cope with demands for service delivery, including limited political frameworks, inadequate financial systems, and inefficient management systems. The City of Masvingo demonstrates innovative infrastructure financing models that are worth acknowledging and supporting at the policy level. In the context of subdued municipal revenue and inadequate and erratic national fiscal transfers, Masvingo is one city directly engaging residents to fund specific infrastructure using a special levy model. Examples include a 2012 water augmentation project

Phase 1 (ICA 2012). This involved the building of new water pumping, conveyance, and storage infrastructure, which was initially to be funded through a government loan or grant. The city resorted to levying residents for the project. In 2015, after citywide consultations, residents of Masvingo agreed to the city's proposal to instal a traffic circle at a busy intersection where vehicular-pedestrian conflict led to frequent accidents.

The interview with the city's town clerk of March 2021 and the senior government official of April 2021 revealed other innovative infrastructure financing models. These include a school the community directly supported, a partnership with Simbi (a steel company) on social services, and the expansion of the steel industry using a model that integrates small-scale businesses. Another example is the upgrading of Mucheke Hostels. The project involves upgrading housing, water, sanitation, and hygiene (WASH) facilities in the oldest of the city's suburbs where in some sections up to twenty-five (25) households living in one room each share a toilet-cum-bathroom and did not have places for washing clothes or cleaning plates. In partnership with Dialogue on Shelter and the Zimbabwe Homeless People's Federation, Masvingo City expanded infrastructure to decongest housing and WASH facilities (see Fig. 15.5). Some of the refurbished apartments include Mambo and Large Barracks Hostels housing approximately 60 families (City of Masvingo 2020). The project addresses the infrastructure gap that was occasioned by the absence of adequate housing facilities to cater to the booming population since independence.

The ability of a local authority to provide services depends on the revenue it collects and how innovative it is to source and manage the funds (We Pay You Deliver Consortium 2018). The City of Masvingo is responsible for providing services such as healthcare, refuse collection, water and sanitation, fire protection, and primary education. The town's principal sources of revenue include water charges, land rates, municipal bars, sewerage fees, and bus park fees. Masvingo derives its largest income from water charges, contributing 30 to 40% to Council revenue (Gukurume 2011). Innovative sources discussed above augment Council revenue.

Before *After* *After*

Fig. 15.5 Pre- and post-refurbishment of facilities. (Source: Inclusive Urban Infrastructure Fieldwork: Young Community Contacts (2022))

There are, however, current challenges in Victoria Ranch. The interview with the town clerk confirmed a lack of adequate infrastructure and social services. As a result, a new clinic and a primary school built in the nearby area of Runyararo West were being overloaded by residents from Victoria Ranch, where relevant services are lacking. The school was now the size of three in terms of enrolment, forcing hot sitting. Victoria Ranch needs schools and clinics but is outside the city's spatial and governance boundary. This puts pressure on the city to find innovative ways of improving relevant infrastructure and services to meet the demands of its formal residents and those of the neighbouring settlements established under national government supervision. The city estimates that water demand will reach 60 mega litres per day by 2030 in the whole city (City of Masvingo 2020). As a result, plans to further engage residents to reduce physical water losses and expand appropriate infrastructure are underway. The city is building on the success in the 2010s when it augmented water pumping and piping based on a special levy model, as noted above.

15.4.3 Cooperation with Masvingo Rural District Council

The city operationalises cooperative governance in its co-management of the expansive Victoria Ranch housing project established by the national government. A Memorandum of Agreement (MOA) of April 2011 outlines how the Masvingo RDC and Masvingo City Council were to operate in facilitating the development of infrastructure in Victoria Ranch. The two local authorities jointly approved infrastructure (water and sewer) designs and architectural drawings for houses and other structures. Masvingo City is responsible for connecting water and sewer to settlement following on-site or in-settlement emplacement of infrastructure by land developers contracted by the national government to facilitate housing development on urban state land. The city will also maintain water and sewer reticulation for the settlement, anticipating urban incorporation should the local authority boundaries change in the future (see also Takuva 2017).

15.5 Underutilised Uniqueness of the City

Masvingo City is rich in heritage resources. Its proximity to the Great Zimbabwe City, which has a world heritage status (Ndoro 1994), can inform physical planning and urban design practice. The ancient city's materials, colors, scale, and building style provide a basis for a cohesive set of design guidelines that can be utilised in coming up with heritage-based urban planning (Tanyanyiwa and Chikwanha 2011) and governance. The indigenous architecture of the 'ruins' is in sync with the local natural environment, building technologies, materials, and social values (Chirikure et al. 2016). Given that this settlement relies on its heritage values to attract tourism, it

seems appropriate to draw upon the heritage wealth of the area to promote its future. The Great Zimbabwe Monument is the flagship of the Zimbabwe tourist industry and therefore has national importance (Chirikure et al. 2016). This settlement developed on a natural landscape. This makes it a unique cityscape based on its heritage status, and hence its planning must be based on heritage and environmental enhancement rather than common planning and design practice (Macheka 2016).

The city's uniqueness provides a framework for thinking about and understanding the concept of heritage and environmental conservation in spatial planning. While the quality of development is important in all resort communities, its location in a World Heritage Site makes it essential for the quality of the built environment to strive to match the quality of its spectacular heritage and natural environment (Macheka 2016). The Great Zimbabwe is a designated World Heritage Site and is one of the major tourist attractions of the city. Tourism, if fully utilised, is one of the major industries with relevance to the economy of the city and the province. Other tourist sites, which are also important to the economy of the city, are the ragged and rocky shorelines of the Mutirikwi Dam; the second-largest national park, the Gonarezhou National Park; and the wildlife conservancies of Malilangwe and Save Conservancy (Mapfumo and Madesha 2014).

Zimbabwe and the SADC region have not adequately articulated the heritage of the 300 dry-stone settlements for urban policy, planning, and development. Clearly, also, the lessons of how these settlements were used, maintained, and expanded have not influenced relevant thinking, even for the settlements physically closest to these ancient cities like Masvingo. Perhaps the establishment of Fort Victoria and the colonial urban trajectory the city's development buried the history. However, it is opportune for present-day planners and city designers to draw inspiration from the ancient city for application in Masvingo City's strategic and spatial development.

15.6 The City's Lack of a Vibrant Industrial Base

Despite it being the oldest town, the city has been relatively behind regarding industrialisation compared to other towns established later, such as Harare and Bulawayo. Masvingo does not have a dynamic industrial base. Notable manufacturing industries include the iron and steel company, a meat processing factory now defunct for years, and a leather manufacturing company. Most of the city's businesses are in the service sector, dominated by bus operators and a few distribution centres (Mapfumo and Madesha 2014). Other industries supporting the economy of the province are mining with limited city-based mining-related manufacturing. In the mining sector, only two major mines are functional, which are the lithium mine in Bikita and the gold mine in Renco (Maunganidze et al. 2013). There are, however, small-scale alluvial mining activities throughout the province, mostly in the informal sector (Chazovachii 2020).

Masvingo has a weak industrial economy. It has struggled to diversify its economy despite having strategic location factors supporting it. This may be attributed to the lack of dedicated national development policies targeting the growth of location-relevant industrial activity in secondary cities. In addition, the socio-economic challenges experienced in the country in the past contributed to the constrained economic base of the city (City of Masvingo 2019; Chidoko and Zhou 2012). Recently, there have been efforts for Victoria Falls to utilise its strategic location based on tourism to boost the city's growth, with the government setting up a stock exchange. Such measures, if applied to all secondary cities, are useful in transforming them to realise their potential.

Despite its traditions of sound governance, Masvingo has not had a focused industrial development programme with sufficient national government support. Industrial activity anchored on mining and agricultural production in the province has not been adequately promoted. The sugar industry; cattle ranching; and lithium, gold, and iron ore mining in the province can be connected to tertiary-level processing in the city. Place-based economic potential has long been a relevant ingredient for settlement sustainability. In Masvingo's case, enough has not been done to ensure that key economic drivers are supported as a basis for the city's development locally, nationally, and regionally.

15.7 City Deprivation

Secondary cities tend to suffer domination by primary cities (Githira et al. 2020). They face multiple deprivations that constrain their potential. Deprivations in secondary cities stem from unsustainable urban growth and a lack of commitment to shaping growth (Githira et al. 2020). Despite the unique status of the Great Zimbabwe ruins as a World Heritage Site, the planning of such areas still follows normal planning and design regulations that have no guidelines for banking on the uniqueness of these areas. The deterioration of rail use in the country affected the performance of Masvingo as a corridor city. The neglect to keep up with railroad conditions has decreased good transport from 18 million tons in 1998 to 4 million tons in 2015 (Chingarande et al. 2020). Yet cities like Masvingo do not need to be governed as if they were competing with capitals or other cities. Rather, their comparative advantages need to anchor their growth and sustainability in a manner complementing the national settlement hierarchy as well as overall development. Such a model can determine how national fiscal transfers target cities' anchor activities in terms of social and economic drivers of growth. In the case of Masvingo, this would be its heritage and tourism assets, as well as the industrial advantages it has.

15.8 Discussion

Masvingo City has had a historical role as an economic aggregation, processing, and distribution node at the heart of two strategic national corridors connecting the country's north-south and east-west axes. As a provincial capital for Zimbabwe's south-eastern corner, the city has had spatial and economic leadership of a region rich in tourism assets and agro-based industries. Further, the city has an important political, social, and economic history. The completion of Tokwe-Mukosi provides another strategic tourism and recreational asset around which a service industry requiring support from Masvingo City can grow. A unique mix of heritage, agricultural, mineral, recreational, and tertiary education resources require conscious cultivation in Masvingo's development praxis.

These rich and unique opportunities offer key lessons for national and local urban planning and broader urban governance. As a secondary city, Masvingo has not been a mere copy of Zimbabwe's main metropolises of Harare and Bulawayo. It has fulfilled unique geo-spatial and economic functions, with its authorities leading a trajectory of development in a manner relevant for other secondary cities to learn from. As observed by Githira et al. (2020), secondary cities are full and stand-alone urban centres, something that Masvingo exhibits based on historical and contemporary analyses. Though similar to other cities in some instances, Masvingo remains distinct and should be classified and developed accordingly. Development plans (master and local) are key instruments to guide urban development in a way that recognises the unique local context to anchor a diversified heritage and industrial economy.

While many studies have overemphasised on the political and socio-economic challenges and opportunities in primary cities (ADB and Cities Alliance 2019), there are also key experiences and lessons from secondary cities' experiences. These may contrast or even be similar to experiences in primary cities. Secondary cities need not be looked at based on the actual political and socio-economic factors that define them. Contrasting infrastructure emplacement and governance experiences in Old Mucheke and Victoria Ranch show the need for a closer look at the contextual factors in the city. This is because secondary cities have their own political and socio-economic contexts that may either constrain or promote sustainable urban development interventions. The urban managers, officials, and policymakers of secondary cities need to understand this context and use it to frame spatial interventions.

15.9 Conclusion

Masvingo City demonstrates contextual uniqueness in its transition. This requires support at the national, regional, and local levels. The city went through some cycles of development as it transitioned from 1890 to the present day. The question becomes whether Masvingo and Zimbabwe's urban managers invest enough in understanding the city's transition and what lessons it offers. There are innovative

infrastructure financing models emerging from the city that are worthy of acknowledgement. The city is making good progress in terms of how it relates to residents, CSOs, and the private sector. These are some of the important factors that explain its transition. The chapter shows that conflicting rationalities can be amicably dialogued. Examples of partnerships presented in the chapter attest to this.

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Chapter 16
The Future of Secondary Cities in (Southern) Africa: Concluding Remarks and Research Agenda

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Abstract Since colonial times, secondary cities in southern Africa have been in a state of flux yet have been central in promoting and stabilising local governance. They balance and filter centre-local relations differently from capital and metropolitan cities, creating unique spatial and economic efficiencies as well as problems. Their realities, pressures, and opportunities yield different dividends to their immediate communities and transcend national and international development interests. These multiple roles are inadequately understood, yet they remain strong as secondary cities are living *open systems* acting as laboratories for experimentation and domestication of new urbanism innovations, such as smart cities and sustainable development goals (SDGs). They provide nodes for better advancing new ways of managing rapid urbanisation and the various layers of urban informalities. Reflecting on the past and present of secondary cities' spatial planning and governance dynamics offers exciting scenario-building opportunities that inform engagement with urban futures linked to models that create resilient cities that are competitive, just, and sustainable. This chapter uses a thematic approach to reflect on the main messages proffered by various chapter contributions to this book. The chapter captures

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practical ways of negotiating the cracks, curves, and contours of urbanity and the post-colonial spatial identities and economies of African secondary cities. The policy, planning, and decision-making implications of a refreshed understanding of the storyline of secondary cities demonstrate the complementary and catalytic roles they play in allocating and managing socio-economic and spatial growth dividends in rapidly extending southern African urban landscapes.

Keywords Secondary cities · Southern Africa · Local governance · SDGs · Spatial growth · Urban landscapes

16.1 Introduction

Globally, approximately 2400 cities whose population size ranges between 150,000 and five million have generally been identified and classified as secondary cities (Kalwar et al. 2020; Krishnamurthy et al. 2016; Pechpakdee 2020). The role of secondary cities ranges from being regional to being sub-national growth nodes and poles, acting as sponges for urban and regional planning, facilitating a better and more balanced spatial distribution and hierarchy of urban areas, and acting as shock absorbers to excess urban labour or retired labourers as they increase spatial areas of choice for a living (Florida et al. 2021; Peralta Quiros et al. 2019; Scholvin et al. 2019).

Consequently, the literature review as well as the case studies showcased in this edited book corroborate the known, that secondary cities are increasingly assuming the role of engines or sub-engines in the rapid urbanisation narrative of the world (Christiaensen et al. 2013, 2017; Donaldson et al. 2020; Gibson et al. 2023; Haysom 2022). This is also evident in the book's last section, which demonstrates the critical role these secondary cities play in supporting economic growth and development. This role and function are much more pronounced in the Global South, and the momentum is projected to remain so in the forthcoming decades (Chen 2014; Cohen 2006; Rahayu and Mardiansjah 2018; Turok 2012; Zimmer et al. 2020). Consequently, there is a need for structured accommodation for the changing secondary cities' requirements and demands (i.e., increasing demand for housing, growing informalities (be they informal settlements., informal trading, etc.)); infrastructure (both old and new) deployment or construction, investment, targeting, allocation, distribution, maintenance, upgrading, and sustainability; the creation of employment opportunities, e.g. jobs; and ensuring the availability, access, and affability of requisite social services; data and technology application gaps and facilities (Arku and Marais 2021; Ranchod 2020; Rogerson et al. 2014; Videla et al. 2020).

For these secondary cities to perform and fulfil adequately and competitively their expected functions, it is vital that these cities have agile and adopt *eclectic* governance, spatial and territorial dynamic planning, and urban management

systems that are adequately manned by qualified and competent human resource personnel (Brenner and Schmid 2015; Healey 2006; Irazábal 2017; Mohamed et al. 2020). Solutions for innovation and re-inventing secondary cities can be generated from an internal perspective or from an external view or from various hybrids of the two, as well as seeking solutions and invention options outside the current and envisaged knowledge realms and paradigms of current and known urban spatial planning and governance systems and structures.

A school of thought proposes that through the creative use of secondary cities' own social, economic, spatial (physical and environmental), and political platforms, they can explore how the value-add that employing tactical city governance urbanism in various forms and styles of *secondary city management as a service* could present opportunities for alternative management styles (e.g., twinning arrangements) and alternative city pathfinding and different city form and structure making ways (Caputo and Walletzký 2017). This links to the concept of secondary city regions, secondary network cities, and extended secondary city geographies of the corridors of development, as well as the amplification of the application of Walter Christaller's central place theory in city size; rank; function; spatial, economic, and political organisation; and structuring in an area (Brand et al. 2021; Qianyi et al. 2019; Zimmer et al. 2020). These arrangements and formats of governance can be helpful in boasting the economic growth of a string and network of surrounding cities and in contributing to the sustainable development of an entire region pivoted around the central role played by a secondary city.

Additionally, studies and research confirm the importance of systemic urban management, creating additional value and both forward and backward linkages in shaping secondary cities and the chain of cities in any setting (Permana and Harsanto 2020; Pineda-Pinto et al. 2021; Soe et al. 2022). Such systems and mechanisms provide expanded platforms to optimise spatial investments, targeting and propelling the generation of new and expanded revenue streams for city governance and stakeholders (O'Brien and Pike 2019; Roberts et al. 2019; Ruhlandt 2018; Savini 2013). An integrated analysis and reflection of the above-mentioned issues highlight the importance of promoting and supporting local governments via secondary cities as an example of mobilising revenues to facilitate enhanced productivity, improved planning, higher economic growth, city competitiveness, and resilience.

The case studies of secondary cities (Mbombela (Nelspruit), Norton, Beira, Chinhoyi, Chitungwiza, Shurugwi, Masvingo, Sasolburg (Metsimoholo), and Beitbridge) presented in this book reveal weaknesses in respect of current and future spatial planning, economy, logic, governance, sustainability along different dimensions on marginalisation, constraints, and limitations at different geographic scales. Global assessment surveys and studies of secondary cities' growth and development have found similar weaknesses, gaps, and fault lines with respect to current spatial planning systems' robustness, *fit for purpose* administration systems, and adaptive economic and sustainable development steering mechanisms to facilitate transitions from high-carbon economy to low-carbon economy (Alkhedheiri 1998; Kessides 2006; Marome and Pholcharoen 2019; Vu and Hartley 2018).

The abundant literature demonstrates inconclusive attempts at seeking to generate a common and standard definition of what constitutes secondary cities across regions, over time, and as fed by different paradigms in development (Ammann et al. 2022; Finch et al. 2017; Kalwar et al. 2020). However, generally, the literature and the case studies in the chapters advanced in this volume attempt a framework definition that conceives secondary cities, taking account of the size of the population, urbanised areas, regional functions, economic importance, and legal status (Finch et al. 2017; Keunen 2017; Pendras and Williams 2021; Roberts et al. 2022).

Therefore, this chapter aims to capture and reflect on the practical ways to negotiate the cracks, curves, and contours of urbanity and the post-colonial spatial identities and economies of African secondary cities as advanced by chapters in this book and informed by international trends. In addition, the chapters explore the policy, planning, and decision-making implications of secondary cities with respect to the roles they play in allocating and managing socio-economic and spatial growth dividends in rapidly expanding southern African urban landscapes.

This chapter has three main objectives that are intertwined and complementary in nature. These interlinkages and dependencies emphasise the complexity, dynamic, and changing nature of secondary city issues that continuously innovate, re-invent, and co-create solutions over time, space, and places. Consequently, *this chapter first captures practical ways to negotiate* the cracks, curves, and contours of urbanity and the post-colonial spatial identities and economies of African secondary cities. *Second*, the chapter reflects on the policy, planning, and decision-making implications of a renewed and expanded understanding of secondary cities in developing countries. *Third*, and finally, but not least, by critically reflecting on the main messages from the chapters in the book as well as linking these with general trends in the development and management of secondary cities throughout the world, the chapter expands our current understanding of the complementary and catalytic roles that secondary cities play in the extended global *systems of city-systems.*

16.2 Chapter Organisation

This chapter is organised into five sections. *Section one (1)* presented the justification to and the contextualisation of the study. *Section two (2)* presented the research methods used in the chapter. *Section three (3)* revisits the history of secondary cities regarding seeking to understand and locate the cities in terms of place, function, context, and positionality. *Section four (4)* presents a critical analysis of secondary cities'governing and governmentality regimes and systems, assessing their strengths and limitations in further promoting the growth and development of secondary cities. *Section five (5)* presents concluding views and thoughts on secondary cities and governance in southern Africa specifically and developing countries generally.

16.3 Research Method

This chapter uses a content and thematic approach to reflecting on the main messages being proffered by various chapter contributions to this book. In addition, secondary data analysis in the form of desktop analysis is used to complement and strengthen the findings by grounding them in the existing literature. These findings are synthesised in terms of the chapter's discussion points and matters of further engagement and investigation.

16.4 The History of Secondary Cities: Understanding Place, Function, Context, and Positionality of Secondary Cities

Research in secondary cities emphasises their role in supporting and expanding livelihood options and opportunities for approximately 80% of Africa's population that is not resident in large cities and metropolitan regions (Abera et al. 2022; Diao et al. 2019; Marais and Nel 2019; Shackleton et al. 2020). Indeed, secondary cities are centres of sub-national government, spatial logistics corridors and nodes, employment attraction, generation and absorbing areas, special economic zones, and increase the access, availability, and affordability of services in the study area (Grover et al. 2022; Jain and Korzhenevych 2022; Joshi 2021). These secondary cities range in population size from 100,000 to ±1,000,000 in heavily populated countries of the world (Hannah et al. 2022; Kalwar et al. 2020; Zimmer et al. 2020). Table 16.1 presents the number of cities classified by size class of urban settlements in Africa and by regions (1990–2035).

From Table 16.1, we can deduce that secondary and small to medium-sized cities, in most instances, fit Walter Christaller's central place theory. An identified gap in research, policy, and planning focus is the low priority, focus and targeting of national urban policy, in respect to the capacity building and infrastructure investment in secondary cities (Ranchod 2020). Invariably, the national spatial and physical development city systems exhibit distorted and fragmented secondary city landscapes. For example, one or two large metropolitan regions(s) dominate the geographical landscapes in developing countries (Baffi et al. 2018; Bourne 1996; Southworth and Owens 1993).

Research in African secondary cities confirms that the continent is rapidly urbanising, developing, changing, and transforming (Arndt et al. 2018; Imai et al. 2017; Obeng-Odoom 2015; Riley and Crush 2022). However, a discernible concern in the current spatial growth, development, planning, pattern, and trend is the skewed spatial systems of the city landscape. The problem and challenge of differentiated degrees and forms of primacy haunt and affect resource allocation, sharing, and distribution, with specific implications for secondary cities. This raises questions in

Table 16.1 Number of cities classified by size class of urban settlement, 1990–2035

Africa	1990	2000	2010	2015	2020	2030	2035
10,000,001 million or more		1	2	3	3	5	5
5,000,001–10 million	1	2	2	3	6	13	19
1,000,001–5 million	24	37	42	51	59	81	93
501,000–1 million	29	35	56	60	75	111	128
300,001–500,000	43	48	65	90	92	117	121
100,001–300,000	171	255	351	485	715		
50,000–100,000	290	454	636	782	815		
Total	558	852	1154	1474	1765		
Eastern Africa							
10,000,001 million or more	0	0	0	0	0	1	1
5,000,001–10 million	0	0	0	1	1	4	5
1,000,001–5 million	5	9	9	10	14	17	17
501,000–1 million	5	3	11	14	13	30	40
300,001–500,000	8	13	10	18	21		
100,001–300,000	25	37	60	107	157		
50,000–100,000	35	81	128	162	182		
Total	78	143	218	312	388		
Central Africa							
10,000,001 million or more	0	0	0	1	1	2	2
5,000,001–10 million	0	1	2	1	1	2	2
1,000,001–5 million	2	6	5	9	10	16	22
501,000–1 million	5	5	9	8	16	17	15
300,001–500,000	8	6	13	19	13		
100,001–300,000	18	36	39	53	82		
50,000–100,000	32	36	60	87	95		
Total	65	90	128	178	208		
Northern Africa							
10,000,001 million or more	0	1	1	1	1	1	1
5,000,001–10 million	1	0	0	1	2	2	2
1,000,001–5 million	6	7	8	7	8	12	12
501,000–1 million	4	7	10	13	14	17	21
300,001–500,000	13	14	18	21	21	224	25
100,001–300,000	46	76	109	136	205		
50,000–100,000	104	140	189	210	208		
Total	174	245	335	389	459		
Southern Africa							
10,000,001 million or more	0	0	0	0	0	0	0
5,000,001–10 million	0	0	0	0	1	2	2
1,000,001–5 million	4	5	6	6	5	5	6
501,000–1 million	3	5	4	5	7	9	8
300,001–500,000	3	2	3	5	3	5	5
100,001–300,000	15	23	36	42	48		
50,000–100,000	26	54	57	61	71		
Total	51	89	106	119	135		

(continued)

Table 16.1 (continued)

Africa	1990	2000	2010	2015	2020	2030	2035
Western Africa							
10,000,001 million or more	0	0	1	1	1	1	1
5,000,001–10 million	0	1	0	0	1	3	8
1,000,001–5 million	7	10	14	19	22	31	36
501,000–1 million	12	15	22	20	25	38	44
300,001–500,000	11	13	21	27	34	41	39
100,001–300,000	54	71	90	126	191		
50,000–100,000	82	120	170	210	202		
Total	166	230	318	403	476		

Sources: United Nations Urban Prospectus (2012), Africapolis (2020), Roberts and Anyumba (2022)

respect of risk and resilience capacity in the event of pandemics/epidemics, human-induced conflicts, and other disasters. These questions become acute when the response is considered from a full life-cycle analysis in which secondary cities are understood as a sub-system within the extended national and global systems of cities. If one considers an example, the classical case is the Gauteng city region in South Africa, which produces approximately 40% of the national gross domestic product (GDP). This situation presents such metropolitan cities as places of opportunities yet with a downside of also being hotspots of disasters. Table 16.2 presents the primacy and dispersion patterns of cities by percentage in African geographic regions.

Table 16.2 highlights the twin challenges of dispersal and primacy in the African city landscape. It suggests that secondary cities can play a role in smoothening and flattening the curve of primacy as well as presenting opportunities for development densification, compaction, and balanced spatial distribution of cities as a way of overcoming the spatial inefficiencies of the current cities' geographical footprint. One school of thought in seeking to ameliorate these imbalances is aiming to adopt a more dispersed and equitable spatial pattern of cities' hierarchy, size, and distribution as a way of expanding and spreading risks and resilience of cities for productivity, adaptability, and responsiveness. This model that decentralises wealth concentration and distribution from one city and creates opportunities to realise the development potential of secondary cities and regional economies is amenable to overcoming the colonial legacy of urban spatially divided and fragmented urban spaces. Future policy and planning conversations and interventions in these underdeveloped spaces of opportunity that are occupied by secondary cities can use the same secondary cities as key steering mechanisms and tools. This will be in terms of requiring full development in respect of the full potential of spatially integrated and connected systems of cities that anchor and direct the growth and development of more equitable, resilient, just, and sustainable cities.

On average, the densities of cities in Africa are approximately 4070 persons per km^2 (pp/km^2). There is, however, variation in cities' densities by region or place. In this regard, the densities range from 6265 pp./km^2 in northern Africa to

Table 16.2 Primacy and dispersion patterns of cities by percentage in African geographic regions

	>10 million	5-10 million	1-5 million	0.5-1 million	D/P
Africa	1.9%	1.0%	44.8%	52.4%	D
Sub-Saharan Africa	1.2%	1.2%	46.5%	51.2%	D
Eastern Africa	0.0%	0.0%	45.0%	55.0%	D
Central Africa	0.0%	6.7%	53.3%	40.0%	P
Northern Africa	5.3%	0.0%	36.8%	57.9%	D
Southern Africa	0.0%	0.0%	87.5%	12.5%	D
Western Africa	2.3%	0.0%	37.2%	60.5%	P

Key: P = strong primacy, D = predominantly disperse
Source: Data derived from United Nations (2012), Roberts (2014), Cities Alliance (2014), Roberts and Anyumba (2022)

2454 pp./km^2 in eastern Africa (Roberts and Anyumba 2022). An interesting observation is that secondary cities reflect higher densities that surpass 8363 pp./km^2 in northern Africa but fall as low as 2571 pp. km^2 in eastern Africa (refer to Table 16.3). In addition, as highlighted by the case studies in this book and corroborated by similar and related studies, the overall level of services (LOS) for secondary cities with respect to water, sanitation, waste collection, roads, and electricity is below that existing in large and metropolitan areas (Roberts et al. 2022; Umbach 2005; Videla et al. 2020).

As highlighted by all chapters in this volume, most African secondary cities exhibit some or many of the following characteristics:

- They act as regional and sub-regional administrative centres for provincial governments.
- They act as dormitory or satellite towns providing a hedge and sponge for the urbanisation spill-over effects as typified by Chitungwiza in Zimbabwe, one of the secondary cities covered in this volume.

Table 16.3 Density of population per square kilometre for African cities and regions

Density (pp/km^2)	Africa	Eastern Africa	Middle Africa	Northern Africa	Southern Africa	Western Africa
10,000,001 million or more	12,151			12,960		10,839
5,000,001–10 million	3748	2369	2287	16,810	4811	3146
1,000,001–5 million	3685	1881	3911	5226	4035	5136
501,000–1 million	4053	1803	6454	6646	4910	5050
300,001–500,000	4144	2571	5910	8363	4229	4413
100,001–300,000	3792	2395	5823	4936	3396	4811
50,001–100,000	4130	3301	5230	5192	2847	4973
10,000–50,000	4110	3721	4463	5693	2259	4944
Less than 10,000	4074	2454	4183	6265	3412	5009

Source: Estimates derived from United Nations (2012), Africapolis Data (2015), Roberts and Anyumba (2022)

- Most are small to medium sized in nature[1] and reliant on agro-tourism, mining, or a service economy that creates multiple risks in respect of climate change, biodiversity and conservation, fluctuations in the global prices of minerals and metals, as well as raising issues in respect of post-mining landscapes and movement towards a low-carbon economy.
- Most of these secondary cities have both systematic and systemic weaknesses with respect to administrative capacity and capability; extent and degree of e-government readiness, access, deployment, use, and sustainability; quality, range, and availability of educational facilities and services; and the quality, availability, affordability, and access to healthcare facilities and services.
- The interaction between the three above-mentioned points and other factors such as compromised online services effectively prevent many African secondary cities from having equal access to services, information, and technologies available in large cities. An opportunity thus exists to tap into big data and analytics to benefit the quality of data and information feeding into secondary city research, policy, and action areas.

The cities in this volume, such as Sasolburg (Metsimaholo municipality), Mbombela (formerly Nelspruit), Beira, and Beitbridge, to name a few, show how countries such as South Africa, Zimbabwe, and Mozambique have adopted an approach that enhances corridor and spatial development through the Internet, smart planning, spatial targeting, and economic incentives in terms of growth point declaration and status, as well as the roll-out of special economic zones (SEZs), and how such approaches can act as stimuli in improving and promoting higher economic returns. Similar approaches have been implemented in Kenya, Rwanda, Tanzania, and Uganda with mixed outcomes (Gubic and Baloi 2019; Sietchiping et al. 2018;

[1] This however does not apply to South Africa and Nigeria for example, countries in which several secondary cities that have populations over 1 million exist.

Tumwesigye et al. 2021). However, despite these attempts, on average, secondary cities in African countries have been found incomplete concerning supporting more competitive, inclusive, and sustainable local economies. Thus, in this volume, the case study cities have corroborated that secondary cities experience significant, differentiated, and unique nuanced problems. The following issues can explain these:

- These cities overall have a poor record in terms of urban governance and management systems.
- Most of these secondary cities lack a critical mass of basic infrastructure, quality education facilities, and appropriate community and health services.
- Some of these secondary cities have been criticised as *victims* of incompletely developed and unreliable urban and regional logistics value systems.
- The post-colony secondary cities are built on colonial-based legal systems which, despite reforms and the introduction of new legislation post-colony and new democracy moments at times still present constraints for the growth and development of post-colony secondary cities.

While many African secondary cities have dynamic local economies, the challenge is that their development is primarily consumption driven, with weak industrialisation[2] and an economic basis with an emerging and growing dominance of an informal employment sector. Added to these factors is the reality that peri-urban areas are highly dispersed, with scattered inhabitants engaged in semi-subsistence activities. Under these circumstances, the secondary cities' population and labour force are characteristically transitionary, with migrants moving both forward and backward, and even stepwise migration happening as migrants either return to rural areas or move into metropolitan regions or shuffle between similar-sized secondary cities in search of employment and livelihood options.

16.5 Governing and Governmentality of Secondary Cities

The inefficiencies of urban governance and management so common in secondary cities are a *wicked problem* area requiring attention (Alm 2015; Head and Alford 2015; Pierre 1999). Secondary cities, by and large, encounter differentiated experiences in urban financial management, revenue, land management, and weak administration systems. These are areas requiring continuous focus and improvement. For example, instances in which property and land tax evasion have been detected and affect municipal accounts are widespread, with implications on the capability to invest and develop the respective secondary cities. Additionally, secondary cities have also been identified as struggling to attract investment and retain educated and skilled human capital. At the same time, the lack of reliable data and information on

[2] Except for South Africa, industrialisation has been slow to develop within sub-Saharan Africa countries.

southern African secondary cities (which is symptomatic of what exists in sub-Saharan Africa) affects the development of urban policy and knowledge regarding the evolution, genealogy, and anatomy of secondary cities.

The case study of secondary cities showcased in this volume shows the diversity of approaches and efforts made in seeking to promote enhanced governance, management, and development of southern Africa secondary cities. Thus, these case studies provide valuable insight into the array of systematic and systemic challenges that bedevil secondary cities in implementing a wide range of plans. The uneven capacity to generate, oversee, and mobilise resources required in implementing the shared visions of secondary cities through plans remains a critical gap that requires closing. The ways of enabling and enhancing the capacity and capability of secondary cities in discharging constitutional mandates and meeting the residents', investors', and stakeholders' requirements also need continuous improvement.

16.6 Conclusion

This book on secondary cities and local governance in southern Africa suggests the need for a new secondary city and local governance urban age agenda in which the sustainable management and development of African secondary cities hinges on resilient, inclusive, competitive, and productive norms, values, and principles, among other key considerations. The main argument presented is that enhanced and improved urban governance, management, planning, and economic development steering mechanisms are central in augmenting the different types of secondary cities (i.e. edge cities, corridor cities, satellite cities, agrotourism cities, mining cities, etc.) in respect of building relevant connectivity and logistic systems. Such platforms foster fertile environments to build (new and old) collaborative networks and partnerships between secondary cities and create a strong network of national and international systems of cities across the southern African region and the African continent in general. Secondary cities'role in supporting the realisation of international global urban agendas, such as the UN New Urban Agenda (2015) and SDGs (2030), cannot be overemphasised.

Indeed, the myriad of challenges and issues confronting southern African secondary cities (and African secondary cities in general) are of a different scale, magnitude, and dimension compared to the challenges and issues experienced in large metropolitan regions. These local, regional, and continental secondary cities differences may suggest that a joined governance approach in which national governments, in conjunction and collaboration with the extended list of stakeholders (from both the private sector, civil society, NGOs, CBOs, etc.), join forces in developing policies, programmes, projects, pilot studies, and trial runs (or demonstration projects) that are more specific and responsive to the needs of secondary cities within their countries.

In the foreseeable decades to come, secondary cities in southern Africa (and Africa and other similar cities throughout the world) will continue to occupy the special role of being engines of rapid urbanisation worldwide, especially in the Global South. However, while the book's chapters have attempted to provide further insight, depth, and latitude regarding potential options, levers, and actions in tackling secondary city challenges, not all questions can be conclusively answered. We see this book as an ongoing conversation and dialogue that attempts to spark continued debate, focus, and policy action in seeking to make secondary cities the *secondary cities we want* and in ensuring that these add value to their role in the global settlement hierarchy and network of cities. We pose some questions and areas for further research and policy action:

- What kind of scale and size of secondary cities are we dealing with, and do we want to create or recreate? This calls for the characterisation of these secondary cities from a southern African perspective using metrics that relate to local socio-economic realities.
- Cities emerge and thrive to accommodate people; hence, we also ask what kind of citizenry we anticipate to be residing in these secondary cities in southern Africa, considering the migration trends (local and international) that eventually impact the governance of these secondary cities.
- Do we have the necessary urban governance capacity and capabilities to guide urbanisation and the urban expansion of secondary cities along a pathway that would create the legacy we want to bequeath to the next generation of city managers and development experts?
- What policies, strategies, spatial frameworks, tools, and techniques are most effective in strengthening the role of secondary cities in the broader economy, national development context, and international global system of cities research and sustainable development agenda?

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